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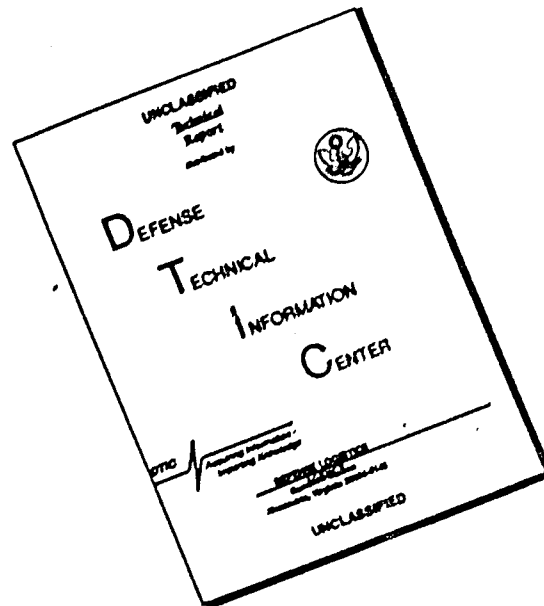
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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310



IN REPLY REFER TO
AGAM-P (M) (23 Feb 67) FOR OT

11 Nov 66

8 March 1967

12 86p.

AD389519

SUBJECT: Operational Report - Lessons Learned, HQ, 10th Combat Aviation Battalion

TO: SEE DISTRIBUTION

Operational rept. for quarterly period ending 31 Oct 66.

1. Forwarded as inclosure is Operational Report - Lessons Learned Headquarters, 10th Combat Aviation Battalion for quarterly period ending 31 October 1966. The information contained in this report should be reviewed and evaluated by CDC in accordance with paragraph 6f of AR 1-19 and by CONARC in accordance with paragraph 6c and d of AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter.

2. Information contained in this report is provided to the Commandants of the Service Schools to insure appropriate benefits in the future from lessons learned during current operations, and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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DEPARTMENT OF THE ARMY
HEADQUARTERS 10TH COMBAT AVIATION BATTALION
APO 96312

AVGD-AT

9 November 1966

SUBJECT: Operational Report for Quarterly Period Ending 31 October
1966, Report Control Symbol CSFOR-65 (U)

TO: See Distribution

SYNOPSIS (C) Significant Organization or Unit Activities

1. (C) General

A. MISSION of the 10th Combat Aviation Battalion: To provide aviation support, as directed by CO, 17th Combat Aviation Group, to US Forces, Republic of Vietnam Armed Forces (RVNAF) and Free World Military Assistance Forces (FWMAF), in developing and maintaining an effective conventional and counterinsurgency capability. To exercise command and control over assigned and attached units as directed by CO, 17th Combat Aviation Group (LOI, 17th Combat Aviation Group, dated 24 September 1966).

B. ORGANIZATION: The 10th Combat Aviation Battalion consists of the following units as of 31 October 1966.

(1) Headquarters and Headquarters Company

256th Signal Detachment
279th Signal Detachment
296th Signal Detachment
238th Counter-Mortar Radar Detachment
Detachment, Company A, 504th Military Police Battalion

(2) 148th Assault Helicopter Company (UH-1) (A)

390th Transportation Detachment (CHFM)
286th Medical Detachment

(3) 117th Assault Helicopter Company (UH-1) (A)

140th Transportation Detachment (CHFM)
130th Medical Detachment

(4) 108th Assault Helicopter Company (UH-1) (A)

201th Transportation Detachment (CHFM)
121st Medical Detachment

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(5) 281st Assault Helicopter Company (UH-1) (A)

483rd Transportation Detachment (CHFM)
499th Signal Detachment

(6) 180th Assault Support Helicopter Company (CH-47)

403rd Transportation Detachment (PMAB)

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C. (C) COMMAND RELATIONSHIP:

(1) LTC B. L. Harrison, Infantry, assumed command of the 10th Combat Aviation Battalion during the previous reporting period (12 July 1966). LTC Henry J. Wilkins, Artillery, was assigned to the position of Deputy Battalion Commander for Support on 13 September 1966. Major Harry Mck Roper Jr., CE, replaced LTC Frank R. Wilson, CE, as Deputy Battalion Commander for Operations on 25 September 1966.

(2) Changes of command within major subordinate units during this reporting period were:

(a) On 25 September 1966, Major Joel J. Williams, Infantry, replaced Major Harry Mck Roper Jr., CE, as Commanding Officer, 48th Assault Helicopter Company.

(b) On 25 October 1966, Major Kenneth L. Ketzler, Artillery, replaced Major Harry J. Zellmer, Infantry, as Commanding Officer, 117th Assault Helicopter Company.

(c) On 26 October 1966, Major Ronald H. Merritt, CE, replaced Major Lavere W. Bindrup, Armor, as Commanding Officer, 129th Assault Helicopter Company.

D. (C) ORGANIZATIONAL CHANGES:

(1) On 4 September 1966, the 135th Aviation Company (CV-2), the 258th Transportation Detachment (ARC) and the 183rd Reconnaissance Airplane Company (O-1) were reassigned from the 10th Combat Aviation Battalion to the 223rd Aviation Battalion. (17th Combat Aviation Group, General Order number 32, dated 30 August 1966). There were no changes in station involved, all units remained at Dong Ba Thin, RVN.

(2) 180th Assault Support Helicopter Company (CH-47): On 17 October 1966, the main body of this unit arrived at Dong Ba Thin, RVN from Fort Benning, Georgia. This unit was attached to the 10th Combat Aviation Battalion upon arrival with future command relations TBA (17th Combat Aviation Group, letter of Instruction, SUBJECT: Stationing and Employment of 180th Aviation Company (AMM), dated 8 October 1966 SECRET). The unit is commanded by LTC Thomas F. Perkins, Artillery (assumed command on 24 March 1966). The company will stage at Dong Ba Thin and assume an operational status as rapidly as possible. Once operational and on order of the Commanding Officer, 17th Combat Aviation Group, the unit will

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displace to Tuy Hoa, RVN.

2. (C) Intelligence

3 A. The 10th Combat Aviation Battalion coordinates daily with all other US and Free World Forces in the Dong Ba Thin area to gather and evaluate intelligence information available.

B. In the forward area of operations the supported units provide the battalion with copies of their Daily Intsum and a representative from the battalion attends the commanders briefing at the 1st Brigade, 101st Airborne Division and the 1st Brigade, 4th Infantry Division.

C. An effective system for reporting enemy activities sighted by crew-members was established during the previous quarter and continues to be a valuable method of obtaining and reporting intelligence information.

3. (C) Operations and Training Activities

A. Plans:

The 10th Combat Aviation Battalion remains in a field location vicinity of Tuy Hoa with two assault helicopter companies, reinforced by four CH-47's from the 170th Assault Support Helicopter Company (CH-47) and the command and control element from the battalion headquarters to provide general support to the 1st Brigade, 101st Airborne Division during OPERATION GERONIMO and 1st Brigade, 4th Infantry Division during OPERATION ADAMS and to the ARVN units in the area. All elements continue to operate with minimum essential equipment and remain prepared to move on order to any area of operation as directed by CO, 17th Combat Aviation Group. The 117th Assault Helicopter Company remains in the vicinity of Pleiku reinforcing the 52nd Combat Aviation Battalion in support of OPERATION PAUL REVERE IV. The 281st Assault Helicopter Company with headquarters in Nha Trang continues to provide direct support to 5th Special Forces Group (Abn) and remains under operational control of the 5th Special Forces Group (Abn). The 180th Assault Support Helicopter Company (CH-47) continues to train their personnel and will assume an operational status as rapidly as possible commensurate with the receipt of their aircraft and equipment.

B. Operations:

(1) General: During this reporting period the 10th Combat Aviation Battalion was committed to support two major combat operations (Operation JOHN PAUL JONES 21 July - 5 September and SEWARD 6 September - 26 October. In addition, the battalion was required to reinforce the 11th Combat Aviation Battalion and the 52nd Combat Aviation Battalion. The 10th Combat Aviation Battalion provided support to the following units during this reporting period: 1st Brigade, 101st Airborne Division, 1st Brigade, 4th Infantry Division, 9th ROK Infantry Division, the Capital ROK Infantry Division, 2nd ROK Marine Brigade, 5th Special Forces Group, 1/22 Infantry Battalion, 2nd Brigade, 4th Infantry Division, 1/8

Infantry Battalion, 1st Cavalry Division, the US Third Marine Division in the Dong Ha area, and II Corps and Army Vietnam troops (ARVN). Of significant note is that during the reporting period the 10th Combat Aviation Battalion conducted three battalion size night combat assaults. The three assault helicopter companies under the operational control of the 10th Battalion and the battalion command and control element have remained in forward operations area during the entire reporting period. The 129th Assault Helicopter Company made a total of six moves during this period. On 1 August the company moved from Pleiku to Tuy Hoa; however, shortly after their arrival they were required to return on the same day to Pleiku because of major changes in the tactical situation in that area. The movement of unit equipment by C-130 aircraft had already begun before the change of movement instructions were received and it was 5 August before all their equipment could be reassembled in Pleiku. On 8 August the company returned to Tuy Hoa with minimum equipment to provide additional support to the 1st Brigade, 101st Airborne Division in operation JOHN PAUL JONES. The company remained at Tuy Hoa until 19 August when they returned to Pleiku to again reinforce the 52nd Combat Aviation Battalion. The 129th then returned to Tuy Hoa on 11 September to participate in operation SEWARD and moved with the battalion command and control element, the 48th and 117th to vicinity of Phu Heip (Vagabond Valley) on 25 September. The 117th Assault Helicopter Company moved from Tuy Hoa to Pleiku on 16 October. The company was alerted for movement at 151600 hours October. The aircraft and crews departed Tuy Hoa at 161100 October and were operational at Pleiku 161330 hours October. The unit equipment was palletized and began movement by C-130 aircraft 161400 October. The entire company minus their 140th Transportation Detachment were assembled and operational at Pleiku within thirty six hours of the receipt of the warning order to conduct the move. The 140th Transportation Detachment conducted a move from Tuy Hoa to Pleiku via sealift and road march beginning on 20 October and closing at Pleiku on 24 October.

(2) OPERATION JOHN PAUL JONES (21 July - 5 September 1966)

(a) The task organization of the 10th Combat Aviation Battalion during operation JOHN PAUL JONES was as follows:

1. Command and Control, Headquarters, 10th Combat Aviation Battalion.
2. 48th Assault Helicopter Company (UH-1) (A)
3. 117th Assault Helicopter Company (UH-1) (A)
4. 129th Assault Helicopter Company (UH-1) (A) (8 Aug - 18 Aug)
5. Detachment, Company B, 228th Assault Support Helicopter Battalion (8 Aug - 30 Aug).
6. Detachment, 179th Assault Support Helicopter Company (CH-47) (1 Sep - 4 Sep).

7. Pathfinder Detachment, 10th Combat Aviation Battalion

(b) 10th Combat Aviation Battalion's mission during operation JOHN PAUL JONES was to:

1. Provide general support to 1st Brigade, 101st Airborne Division, 2nd Republic of Korea Marine Brigade, and the 47th ARVN Regiment.

2. Be prepared to mass aviation support as directed by CG, I FFORCEV.

(c) The operations and accomplishments of the 10th Combat Aviation Battalion and attached CH-47 flight during JOHN PAUL JONES are reflected in the following statistics:

1.

UNIT	TROOPS	CARGO (TONS)	SORTIES	TIME
48th	17886	494.35	13138	3310.3
117th	17119	343.21	13111	3377.3
129th	2597	110.60	1855	543.2
B/228	1500	876.70	508	172.0
179th	481	143.7	114	41.6
Total	39,583	1,968.62	28,726	7,444.4

2. Combat Assault:

	US	NON US
<u>a.</u> Platoon size	15	9
<u>b.</u> Company size	19	6
<u>c.</u> Battalion size	6	6

3. Ammunition expended

7.62mm	2.75"	40mm	5.56mm	50 Cal
1,094,778	7,658	180	180	730

4. Night Time:

<u>a.</u> 48th Assault Helicopter Company	183.3
<u>b.</u> 117th Assault Helicopter Company	158.9
<u>c.</u> 129th Assault Helicopter Company	-
<u>d.</u> B/228th Assault Support Helicopter Battalion	--
<u>e.</u> 179th Assault Support Helicopter Company	4.0
Total	346.2

5. Anti-Aircraft Fire:

<u>a.</u> Number of aircraft receiving fire	36
<u>b.</u> Number of aircraft receiving hits	9
<u>c.</u> WIA	2
<u>d.</u> KIA	0
<u>e.</u> VC KBAA	30

(d) Discussion of Operations

1. Due to a critical shortage of aviators in the assault helicopter companies, aviation support was restricted. On large operations the 10th Combat Aviation Battalion was reinforced by the 161st Assault Helicopter Company to ensure an adequate number of lift aircraft for the ground commander's tactical plan. The heavy burden of the support during day to day activities was carried on by the reduced number of aviators, most of whom flew in excess of 110 hours per month to meet the tactical and administrative requirements placed upon them. As aircraft were grounded for maintenance the crews changed to another flyable aircraft and continued their mission.

2. Due to the extended area of operation and daily enemy contact, numerous gunship support missions were required. Toward the end of the operation the number of gunships available for missions were reduced due to engine changes and crew shortages. On several occasions all available gunships were committed for support of operations on an all day basis. This restricted the battalions ability to conduct immediate combat assaults. Assaults had to be planned based on the return/refueling/rearming of gunships which takes 45 minutes to 1 hour to accomplish, including communications and return flight time.

3. Throughout the operations 6 UH-1D's and 2 UH-1B's were maintained on a standby for movement of a quick reaction force. It is felt that these aircraft should be used for other type missions to equally distribute the flying time of the other aircraft and maintain flexibility. At times this standby force amounted to about one-third of the aircraft available for missions and restricted the supported units utilization of aircraft. We believe that in the event of a quick reaction, aircraft can be recalled, refueled and ready for the mission by the time the troops are organized into aircraft loads and the necessary information is available.

4. On numerous occasions the battalion was called upon to insert the brigade long range reconnaissance patrols (LRRP). On many of the insertions, after approximately 10 to 30 minutes on the ground the LRRP's called for extraction. Often the aircraft received enemy fire, many receiving hits, during the extractions. Considering the sizable risks

being taken by the LRRP personnel and the air crews, there appears to be an urgent need for development of techniques and procedures to capitalize on the contacts made by the LRRP's. Dummy extractions and night airmobile assaults are possibilities and they should be considered.

5. Operations in sand and dust have decreased aircraft engine and rotor blade life. The utilization of peniprime pads has possibly helped prolong engine life, however there is insufficient data available for valid inferences at this time.

6. Planning for heavy cargo loads could have been improved. The CH-47's attached for the operation spent many hours idly sitting on the ground without missions only to be called upon late in the day to conduct routine resupply missions that required them to fly in the late evening hours and do post flight maintenance at night. Prior planning and consolidation of missions would have alleviated this problem and facilitated aircraft utilization and maintenance.

(c) Lessons Learned

1. During JOHN PAUL JONES the 48th Assault Helicopter Company (A) conducted several "Lightning Bug" missions. It was found that utilizing two starlight scopes, one on each side of the aircraft to scan an area of operations prior to turning on the search light enhanced surprise and enabled the "Lightning Bug" crew to pick up more activity on the ground. All missions were coordinated with the ground commander in whose area of operation the mission was to be flown and personnel from the infantry unit accomplished the scanning with the starlight scopes. This gave the "Lightning Bug" mission commander the ability to fire on targets with a minimum of time lost during coordination.

2. Night training was conducted by each of the assault helicopter companies and was culminated by a battalion sized night training assault. Non-illuminated training exercises were conducted followed by exercises using MK24 flares. The flares were dropped from both C-47 aircraft and organic UH-1D helicopters. The flares proved to be very effective if continuous and to the rear of the flight so as to prevent glare and loss of night vision. This was better controlled while using a UH-1D as a flare ship.

3. On several occasions on extractions, stay behind personnel were left in the PZ's as reconnaissance elements. On one occasion a stay behind force was inserted as an extraction was taking place. Two men each on 18 ships were taken to a PZ where an infantry company was being extracted, as the aircraft landed the stay behind force off loaded and the infantry company was extracted in one lift, thus providing a measure of secrecy to the insertion of the stay behind force.

(3) OPERATION SEWARD (6 September - 25 October 1966)

(a) The task organization of the 10th Combat Aviation Battalion during SEWARD was as follows:

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Battalion. 1. Command and Control element, Headquarters, 10th

2. 48th Assault Helicopter Company (UH-1) (A)

(6 September - 15 October) 3. 117th Assault Helicopter Company (UH-1) (A)

(11 September - 25 October) 4. 129th Assault Helicopter Company (UH-1) (A)

5. Detachment, 179th Assault Support Helicopter
Company.

Battalion. 6. Pathfinder Detachment, 10th Combat Aviation

(b) 10th Combat Aviation Battalion's mission during
SEWARD was to:

1. Provide general support to 1st Brigade, 101st
Airborne Division, 9th ROK Infantry Division, and the 47th ARVN Regiment.

2. Be prepared to mass aviation support as directed
by CG, I FFORCEV.

(c) The operations and accomplishments of the 10th
Combat Aviation Battalion and attached CH-47 flight during operation
SEWARD are reflected in the following statistics:

<u>1.</u> UNIT	TROOPS	CARGO (TONS)	SORTIES	TIME
48th	14,238	509.09	10,074	3043.16
117th	9,657	256.04	5,632	1890.7
129th	10,616	325.7	7,336	2081.78
179th	3,477	863.55	620	273.4
	<u>37,988</u>	<u>1954.38</u>	<u>23,662</u>	<u>7289.04</u>

<u>2.</u> Combat Assaults:	US	NON US
<u>a.</u> Platoon size	9	0

<u>b.</u> Company size	10	1
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<u>c.</u> Battalion size	6	1
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3. Extractions:

<u>a.</u> Platoon size	10	0
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<u>b.</u> Company size	10	1
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b. Battalion size 3 1

4. Ammunition Expended:

7.62mm	2.75"	40mm	5.56mm	50Cal
992,280	3,311	7,295	100	250

5. Night Time:

a. 48th Assault Helicopter Company (A)	150.2
b. 117th Assault Helicopter Company (A)	47.7
c. 129th Assault Helicopter Company (A)	9.2
d. 179th Assault Support Helicopter Company	1.3
TOTAL	208.4

6. Anti-Aircraft Fire:

a. Number of aircraft receiving fire	65
b. Number of aircraft receiving hits	19
c. WIA	2
d. KIA	0
e. VC KBAA (BG)	29
f. VC KBAA (EST)	86

(d) Discussion of Operation

1. The importance of release times on aircraft assigned utility and command and control missions proved to be an important factor in unit maintenance programs. Aircraft were scheduled for missions based on an anticipated amount of flying time during the day. This was necessary in order to accomplish scheduled maintenance. The aircraft continually over flew the anticipated flight time for a given day and arrived back in the company area after dark resulting in fewer aircraft available for the following day. One hour or even thirty minutes of daylight maintenance is worth several hours of maintenance performed under reduced light conditions.

2. Forward refueling and ammunition replenishing points are considered necessary when units are operating a considerable distance from the base heliport. When operating forward refueling points the importance of proper fuel handling techniques must be emphasized. On several occasions during SEWARD improper techniques were practiced resulting in contaminated fuel. Fuel personnel should be made aware of the importance of clean dispensing equipment. Adequate space must also be provided for aircraft refueling. On one occasion two aircraft meshed rotor blades while

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attempting to fuel at TUY AN. The congestion at TUY AN was not conducive to safe operating practices due to the amount of truck traffic and artillery virtually surrounding the refueling point.

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3. Unit commanders should insure that all personnel are aware of the hazards created by loose objects in and around landing zones. On two occasions aircraft were damaged by flying ponchos and mail bags. But for good fortune, one of these incidents would have been a fatal accident. It has been noted that ponchos and poncho liners are becoming an ever increasing hazard, particularly when units are supported from small landing zones. Aircraft are in short supply and careless actions in and around the landing zones can only lead to accidents and a reduced number of aircraft to support a given unit. Landing zones should be 50 to 100 meters away from troops living areas to guard against tent blow downs and flying debris. In some cases it may be necessary to move the landing zone away from the troop concentration and provide security during the time the landing zone is being used.

4. On occasions gunship crews and utility crews under the control of ground commanders were not briefed on the current troop dispositions and latest radio frequencies; incorrect information was sometimes provided. The amount of flight time lost by air crews attempting to contact supported units was often excessive. In order to provide better support and obtain maximum utilization of aircraft, the air crews should be thoroughly briefed on current troop dispositions and radio frequencies when they arrive at the forward CP location. This is particularly true when a unit has gunships at a forward location on standby.

5. Normally, each committed battalion was provided with at least one utility helicopter. The purpose of the aircraft was to provide the ground commander with an added amount of flexibility on re-supply, admin and medical evacuation missions. The aircraft is under the ground commanders control and is immediately responsive to his needs. On occasion medical evacuation requests were sent to the rear area requesting an additional helicopter for medical evacuation when a utility helicopter was available for the mission. The time spend briefing the crew and the flight time to the evacuation site would be excessive and lead to an unnecessary loss of life. Whenever possible medical evacuation should be accomplished with the utility aircraft rather than requesting additional helicopters, which may have to be taken from other missions. It should also be emphasized that correct terminology should be used when requesting medical evacuation. Missions were sometimes received requesting emergency or urgent evacuation when a routine evacuation was desired. For an emergency evacuation the first helicopter available is dispatched, and in some cases it is diverted from another mission. If incorrect information is submitted air crews will risk their lives and government equipment when such actions are not required.

6. Due to the reduced number of aircraft available for support, many units are now starting to use 3 to 6 helicopters for squad, platoon, and sometimes company size combat assaults. It must be pointed out that with 6 aircraft on a combat assault a maximum of 36 combat troops can be put on the ground at a given time. With the on coming of the monsoon season there is a distinct possibility of aircraft being unable to provide

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// follow up lifts and extractions. It is felt that maximum number of aircraft should be utilized for combat assaults to insure a certain amount of staying power in a landing zone. These assaults must always be supported by gunships. This can be accomplished by delaying unnecessary or less important missions until after the assault.

7. In order to expedite utility missions, supported units should have slings available and utilize them when the cargo is bulky and suitable for slings. The sling reduces loading and unloading time and enables a helicopter to perform more missions in less time.

8. Ground personnel should be thoroughly briefed on the hazards of firing from the door of the helicopter during extractions. On occasion, personnel who were sitting well back in the helicopter have fired at suspected targets on the ground. An abrupt turn of the helicopter could lead to disastrous results, particularly when flying in formation.

9. It has been observed that some newly assigned personnel from infantry units have a habit of taking off their load bearing equipment and laying their weapons on the floor of the helicopter. When off loading the confusion of picking up the proper equipment and unloading the helicopter requires an unacceptable amount of ground time when conducting a combat assault.

10. When using gunships, the ground commander must be aware of the location of all friendly elements and adequately mark them and the target area prior to conducting a gunship strike. At the same time, positive radio contact must be maintained with the supporting gunships and the commanders on the ground receiving the support.

11. Ground Commander should not take advantage of the pilots eagerness to render full support. This can quickly lead to poor utilization of aircraft. Missions should be consolidated when possible, and sometimes delayed until a full load is available.

(4) Operations of the 281st Assault Helicopter Company (UH-1) (A)

(a) The 281st Assault Helicopter Company continued to provide airlift support to 5th Special Forces Group (Abn) as its primary mission. This support was manifested by continuous support to "C" Detachment and Headquarters, 5th Special Forces Group, and periodic support to the MACV Recondo School and B-52 (Special Operations).

(b) The company remains under the operational control of the 5th Special Forces Group (Abn).

(c) Aircraft from the company are located throughout the area of I, II, III, and IV Corps tactical zones in small detachments.

(d) Operations - During the reporting period the 281st Assault Helicopter Company provided an average of five UH-1D trooplift helicopters and three UH-1B (540) armed helicopters to support B-52

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in long range reconnaissance patrol operations during the periods 8 August thru 23 August, 24 August thru 5 September, and 25 September thru 4 October 1966. Summaries of these operations are listed below. A fourth operation commenced on 14 October 1966 in the vicinity of Khe Sanh for a thirty day period. The results of that operation will be included in the next quarterly report.

1. Song Be (8 August - 23 August 1966)

a. Army aviation support was provided by the 281st Assault Helicopter Company (-). Maximum personnel and equipment committed in direct support of the operation at one time was fourteen (14) officers (pilots), forty-two (42) enlisted personnel, six (6) trooplift helicopters and three (3) armed helicopters. The following tasks were accomplished by the Army Aviation element during the operation:

(1) Total flying hours	228.4
(2) Tasks flown	245.0
(3) Sorties flown	434.0
(4) Troops lifted	450.0
(5) Cargo (tons)	28.1 tons
(6) Recon teams, infiltrated & extracted	9
(7) Recon teams, infiltrated & extracted	5

b. During the operation, seven (7) recon teams were extracted under emergency conditions after having been sighted or fixed upon by enemy personnel. Four (4) of these extractions were under direct fire from the enemy within or near the LZ. A total of eighteen (18) team members were extracted by the McGuire Rig (rope slings).

c. A total of five (5) helicopters (four (4) armed and one (1) trooplift) were hit by enemy fire. Of these, one trooplift helicopter was lost due to enemy fire in the LZ. The other damaged helicopters were able to return to the F. O. B..

d. Aviation Casualties:

(1) KIA: None
(2) MIA: None
(3) WIA: Two (2)

e. Discussion: The shortage of aviators within the 281st Assault Helicopter Company and priorities of aviation support to other Special Forces activities precluded supporting the Project

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13 Delta operations with more than seven (7) helicopter crews. Although the operation was accomplished with these crews, nine (9) helicopter crews are desirable and provide a more safe and flexible operation. The reduction in support dictated the simultaneous infiltration of only two teams whereas the infiltration of three teams simultaneously had been planned and was desired.

Action taken: Project Delta Operations are being considered for a higher priority that would provide for a minimum of nine helicopters to support these operations.

f. Discussion: Local security at the FOB was marginal. The helicopters presented a very desirable target to the enemy and were particularly vulnerable to small arms and mortar fire. The LLDB in support of Project Delta did furnish walking guards in the area, however, it was felt necessary to increase the security of the helicopters by having one crew member awake at all times. This increased the defensive reaction capability of the helicopters. On one occasion the helicopters were evacuated to another airfield at night due to the threat of attack. By keeping one crew member awake there was a marked decrease in crew efficiency.

Action Taken: Sufficient personnel will be committed to establish a defensive perimeter at a distance from the FOB great enough to prevent helicopter vulnerability to small arms fire. This matter has been discussed with the 5th Special Forces Group.

g. Discussion: During the operation, eighteen team members were extracted from the jungle by the McGuire Rig (rope slings) due to their not being able to reach or locate suitable pick-up zones. Although the missions were accomplished utilizing the McGuire Rig, extractions with this equipment is undesirable due to the fact that it greatly increases the exposure and vulnerability of the aircraft and team members to enemy fire. In the event the helicopter had an engine failure while using the McGuire Rig the probability of loss of all personnel is near 100%. Plug-in type hoists have been approved for issue to the 281st Assault Helicopter Company for this purpose but have not been received at this time.

Action taken: Action is being taken to expedite the issue of plug-in hoists to the 281st Assault Helicopter Company.

h. During the operation, four (4) teams were extracted under direct fire from the enemy in or near the LZ. Two (2) of these extractions were made during weather conditions that prohibited the use of Air Force tactical air support. The only fire support available during these extractions was the armed helicopters of the 281st AHC in support of the operation, plus on one occasion, two armed helicopters were borrowed from the 1st Infantry Division. The fact that armed helicopters were available and could react instantly and during extremely marginal

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weather conditions, permitted the recovery of these teams which might have otherwise been annihilated. Suggest the nearest aviation unit provide a light fire team (two (2) armed helicopters) to Delta on 30 minute notice.

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2. Tay Ninh (24 August - 5 September 1966)

a. Army Aviation support was provided by the 281st Assault Helicopter Company (-). Maximum personnel and equipment committed in direct support of the operation at one time was 14 officers (pilots) and 40 enlisted personnel, 5 trooplift helicopters, and 3 armed helicopters. The following tasks were accomplished by the 281st Assault Helicopter Company during the operation:

(1) Total flying hours	257.7
(2) Tasks flown	223.0
(3) Sorties flown	452.0
(4) Troops lifted	517.0
(5) Cargo (tons)	31.2
(6) Recon teams, infiltrated & extracted	8
(7) Recondo teams, infiltrated & extracted	5

b. During the operation all recon teams and 4 recondo teams were extracted under emergency conditions. Twelve (12) of these extractions were under direct fire from the enemy within or near the LZ. A total of seven (7) team members were extracted by McGuire Rig (rope sling) and one by rope ladder.

c. A total of five (5) helicopters (3 armed and 2 trooplift) were hit by enemy fire. Of these one trooplift helicopter was damaged by a hand grenade. All damaged aircraft were able to return to the FOB.

d. Aviation Casualties:

- (1) KIA: None
- (2) MIA: None
- (3) WIA: One (hand grenade)

e. Discussion: During the operation, seven team members were extracted from the jungle by the McGuire Rig (rope sling) due to their not being able to reach or location a suitable pick-up zone.

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15 Although the missions were accomplished utilizing the McGuire Rig, extractions with this equipment is undesirable due to the fact that it greatly increases the exposure and vulnerability of the aircraft and team members to enemy fire. In the event the helicopter had an engine failure while using the McGuire Rig the probability of loss of all personnel is near 100%. Plug-in type hoists have been approved for issue to the 281st Assault Helicopter Company for this purpose but have not been received at this time.

Action taken: Action is being taken to expedite the issue of plug-in hoists to the 281st Assault Helicopter Company.

3. Tay Ninh (25 September - 4 October 1966)

a. Army Aviation support was provided by the 281st Assault Helicopter Company. Maximum personnel and equipment committed in support of the operation at one time was 14 officers (pilot), and 36 enlisted personnel, 6 trooplift helicopters, and 4 armed helicopters. The following tasks were accomplished by the 281st Assault Helicopter Company during the operation.

(1) Total flying hours	180
(2) Tasks	172
(3) Sorties flown	503
(4) Troops lifted	528
(5) Cargo (tons)	20.9
(6) Recon teams infiltrated & exfiltrated	4

b. During the operation, two recon teams were exfiltrated under emergency conditions.

c. The 281st Assault Helicopter Company (-) supported two Ranger operations with maximum effort.

d. Aviation Casualties

(1) KIA: None
(2) WIA: None
(3) MIA: None

e. Discussion: On two occasions, poorly selected landing zones were selected by the recon teams for exfiltration. At the time, no emergency existed and it is felt that adequate time was available

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to select more suitable landing zones in or very near the vicinity of the exfiltration.

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f. Action taken: The recon teams have been re-briefed on selection of and requirements for landing zones.

4. Khe Sanh (14 October - Present)

a. This operation is still in progress and will be covered in next report.

(5) Operations of the 180th Assault Support Helicopter Company (CH-47).

a. This company was attached to the 10th Combat Aviation Battalion upon arrival in the Republic of Vietnam.

b. The movement of the 180th Assault Support Helicopter Company began on 22 August 1966 with the shipment of the unit's TOE equipment and other non-minimum-essential equipment aboard the USS Linfield Victory from Charlestown S.C..

c. The unit's advance party, consisting of two officers, departed Travis AFB, California on 2 October 1966 via military charter aircraft and arrived in the Republic of Vietnam on 4 October 1966. The advance party was met by the 1st Aviation Brigade S-3 and briefed on the unit's assignment to the 17th Aviation Group (Headquarters, 1st Aviation Brigade, General Order 770, dated 1 November 1966). The party was then flown to Headquarters, 17th Aviation Group at Nha Trang via CV-2 aircraft where they were met by the Group Commander. The Group Commander briefed the party on the 17th Aviation Group's role and made the decision to attach the 180th Aviation Company to the 10th Combat Aviation Battalion for staging thru the base camp at Dong Ba Thin, and for the ultimate movement of the unit, after staging, to Tuy Hoa. On 5 October 1966, the advance party was picked up by the S-3, 10th Combat Aviation Battalion and flown to Dong Ba Thin, where preparations were begun to receive the unit's main body.

d. The unit's TOE aircraft, with an escort of five officers, and twenty six enlisted men departed Alameda NAS, California, on 3 October 1966, aboard the USNS Breton. The ship has not arrived in country as of this date due to maintenance problems. Latest information indicated the ship will arrive at Vung Tau on or about 9 November 1966.

e. The main body, consisting of twenty five officers and one hundred seventy eight enlisted men, accompanied by 75,000 pounds of minimum essential equipment, departed Warner-Robbins AFB, Georgia, via C-130 aircraft on 14 October thru 16 October 1966. The first aircraft arrived at Nha Trang on 17 October 1966 and the passengers and cargo were transported to Dong Ba Thin via C-130 aircraft on the same date. The remaining aircraft arrived at Cam Ranh AFB at irregular intervals, with the

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last aircraft arriving 22 October 1966.

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f. On arrival in country, the personnel were met by the advance party and moved to a billeting area at Dong Ba Thin which had been established by members of the 129th Assault Helicopter Company, host unit, and Headquarters Company, 10th Combat Aviation Battalion. An in-country briefing was conducted on 20 October, in-processing was started for all personnel. Processing was completed for all available personnel on 22 October 1966.

g. On 25 October 1966, an in-country flight training program for crew-members was initiated. Eleven officers and nine enlisted men were sent to the First Cavalry Division for training and six officers and eleven enlisted men were sent to the 179th Assault Helicopter Company for training. To date, twenty officers and twenty enlisted crew-members have received training under actual combat flying conditions.

h. On 28 October 1966, the USS Linfield Victory arrived at Cam Ranh Bay. Off loading of unit equipment commenced on 31 October 1966 and was completed on 2 November 1966. Equipment was transported from Cam Ranh Bay to Dong Ba Thin via surface transportation.

(6) Other Combat/Combat Support Operations

a. The 10th Combat Aviation Battalion was committed everyday of the reporting period to combat operations.

b. In addition to the major tactical operation listed above, elements of the 10th Combat Aviation Battalion supported the following operations:

(1) PAUL REVERE II (1 August - 7 August 1966)

(a) 129th Assault Helicopter Company was positioned at Pleiku to reinforce the 52nd Combat Aviation Battalion.

(b) Statistical Highlights:

AA. Combat Assaults	4
BB. Sorties	1379
CC. Troops lifted	1518
DD. Cargo (tons)	92.0
EE. Hours flown	474

(2) PAUL REVERE II & III (20 August - 11 September)

(a) The 129th Assault Helicopter Company was positioned in the vicinity of Pleiku to reinforce the 52nd Combat Aviation Battalion.

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(b) Statistical Highlights:

AA. Combat Assaults	9
BE. Sorties	3353
CC. Troops lifted	4678
DD. Cargo (tons)	244
EE. Hours	1490

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(3) Omega (10 September - 21 September)

(a) Elements of the 129th Assault Helicopter Company were located at Nha Trang to support the 5th Special Forces Group (Abn).

(b) Statistical Highlights:

AA. Combat Assaults	27
BB. Sorties	286
CC. Troops lifted	200 US 344 ARVN
DD. Cargo (tons)	1.0
EE. Hours flown	182

(4) Thayer (12 September - 18 September)

(a) The 117th Assault Helicopter Company reinforced the 1st Cavalry Division in the vicinity of Bong Son

(b) Statistical Highlights:

AA. Combat Assault	6
BB. Sorties	575
CC. Troops lifted	1198
DD. Cargo (tons)	23.6
EE. Hours flown	202.2

(5) HAC HO 49 (23 September 1966)

(a) The 48th Assault Helicopter Company reinforced the 14th Combat Aviation Battalion in the vicinity of Phu Tai.

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(b) Statistical Highlights:

AA. Combat Assaults	1
BB. Sorties	72
CC. Troops lifted	376 ROK
DD. Cargo (tons)	8
EE. Hours flown	31.7

(6) HAC HO 49 (24 September - 26 September 1966)

(a) The 117th Assault Helicopter Company reinforced the 11th Combat Aviation Battalion in the vicinity of Phu Tai.

(b) Statistical Highlights:

AA. Combat Assaults	2
BB. Sorties	156
CC. Troops lifted	258 ROK
DD. Cargo (tons)	3.9
EE. Hours	42.7

(7) HAC HO 49 (28 September 1966)

(a) The 48th Assault Helicopter Company reinforced the 11th Combat Aviation Battalion in the vicinity of Phu Tai.

(b) Statistical Highlights:

AA. Combat Assaults	1
BB. Sorties	188
CC. Troops lifted	313 ROK
DD. Cargo (tons)	43.2
EE. Hours	29.7

(8) DUEL KUK HWA (2 October 1966)

(a) The 48th Assault Helicopter Company reinforced the 11th Combat Aviation Battalion in the vicinity of Phu Tai.

(b) Statistical Highlights:

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AA. Combat Assaults	1
BB. Sorties	140
CC. Troops lifted	514 ROK
DD. Cargo (tons)	12.5
EE. Hours	46.4

(9) DUEL KUK HWA (4 October 1966)

(a) The 117th Assault Helicopter Company reinforced the 14th Combat Aviation Battalion in the vicinity of Phu Tai.

(b) Statistical Highlights:

AA. Combat Assaults	0
BB. Sorties	12
CC. Troops lifted	40
DD. Cargo (tons)	2.0
EE. Hours	3.4

(10) PAUL REVERE IV (16 October to present)

(a) The 117th Assault Helicopter Company was positioned in the vicinity of Pleiku reinforcing the 52nd Combat Aviation Battalion.

(b) Statistical Highlights: (16 October thru 31 October)

AA. Combat Assaults	8
BB. Sorties	2591
CC. Troops lifted	1770
DD. Cargo (tons)	174.3
EE. Hours	726.8

(11) At 071400 October the two standby gunships at Dong Ba Thin were committed to provide fire support to a Vietnamese R.F. Company. The VC had torn up 30 meters of railroad track. The R.F. company was pinned down by fire from the west ridge line. One gunship had made several firing runs at the direction of the ground forces and it had expended all its ammunition, it was returning for rearmament, as the remaining helicopter took up the fire support. On its first firing run it received enemy fire and did not complete its turn crashing into the hill.

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There were 4 crew members killed. There were 4 VC KIA by body count.

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(12) The following is a summary of the statistical highlights of the helicopter accomplishments of the 10th Combat Aviation Battalion during the reporting period

(a) Statistical Highlights (1 August - 31 October 1966)

AA. Combat Assaults	182
BB. Sorties	62,061
CC. Troops lifted	88,091
DD. Cargo (tons)	2,877.69
EE. Hours	22,011
FF. Night time	549.30
GG. Number of aircraft receiving enemy fire	151
HH. Number of aircraft hit	39
II. WIA	6
JJ. KIA	4*
KK. VC KBAA (BC)	63
LL. VC KBAA (EST)	86
MM. Non hostile losses (aircraft accidents)	6

C. TRAINING

(1) The 10th Combat Aviation Battalion has conducted various training activities in conjunction with combat operations. The subjects stressed most have been those which were required to improve or sustain the individual and unit proficiency in combat operations. Listed below are the main subjects covered:

(a) Assault Force Battle Drill. This training was conducted for the infantry battalions of the 1st Brigade, 101st Airborne Division, 1st Brigade, 4th Infantry Division, 28th ROK Regiment, 9th ROK Division and personnel from the 47th ARVN Regiment. The training included methods of loading and off loading personnel from troop carrying helicopters, safety precautions required when operating with helicopters, standard seating configuration, aircraft marking and identification and troop ladder procedures and techniques. Practical work was part of the training whenever possible and practical.

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(b) Night Training. The battalion conducted extensive individual and unit night training throughout the reporting period. A total of 296 flying hours were devoted to night training during the quarter. All unit training was coordinated with the infantry units in the area of intended operations so that the selected landing zones could be tied in with the ground commander's tactical plan. Landings were made into landing zones selected or approved by the infantry commanders with the intent of deceiving the enemy into believing that actual combat assault had been made. The training included conducting both illuminated and non-illuminated night assaults. The use of the battalions Pathfinder Detachment was incorporated by having the team employed into unsecure areas with the mission of providing lighting on the landing zones. It is believed that this training paid huge dividends when on the last night of this reporting period the 10th Combat Aviation Battalion helilifted the 2/327th Infantry Battalion, 1st Brigade, 101st Airborne Division in a non-illuminated night combat assault into two separate landing zones (see inclosure 1 OPORD 25-66). The day following this operation the following message was received from Brigadier General Willard Pearson, Commanding General, 1st Brigade, 101st Airborne Division: "I heartily commend the 10th Aviation Battalion for its sterling performance in the Battalion Airmobile Assault last evening. It was truly a professional job."

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(c) Basic instrument training for all aviators assigned to the battalion. This training program was initiated on 29 August with the objective to attain and maintain a proficiency on basic instruments by non-instrument rated rotary wing helicopter aviators which will enable them to control the helicopter by reference to instruments during inadvertent entry into conditions of reduced visibility and/or visual loss of the actual horizon as a reference. The training program is outlined in 10th Combat Aviation Battalion, training circular 1-3, dated 24 August 1966. Since the initiation of this program a total 112 flying hours have been devoted to this training by the assault helicopter companies.

(d) First aid training for crew members. To insure that all crew members are proficient in administering first aid to injured or wounded personnel a training program of refresher training was presented by the Flight Surgeons assigned to the battalion. A minimum of two hours of instruction were given to all crew members. This training will be repeated every quarter to insure that all personnel receive the training and remain proficient.

(e) Individual weapons training. During the reporting period all assigned and attached personnel were required to fire their weapons for familiarization. This training was conducted in the location that the individual units were located at the time. In addition, all newly assigned personnel are now receiving this training prior to being sent to the forward area.

(f) Standardization Training. A formal course of instructions was prepared and given by the president of 10th Combat Aviation Battalion Standardization Board. All current instructor

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pilots were required to attend the course of instruction. The 1st Aviation Brigades Operations Manual was used as the basis for instructions for the airmobile operational techniques and procedures. The USARV check list and the USARV Aircraft Standardization Handbook were used for flight procedure instructions. A total of 18 personnel attended this training including the Battalion S-3 and the Battalion Standardization Officer. The 17th Combat Aviation Group Standardization Officer was invited but was unable to attend because of other commitments at the time. Great emphasis is being placed on the subject of standardization and training at the unit level will continue.

(g) Pathfinder Training. An extensive OJT training program was required as a result of the loss of the majority of the enlisted members from the team without replacements being assigned. Well qualified personnel in the battalion were selected for this training. A total of 43 hours of instructions was given to one officer and eleven enlisted members of the detachment. At the close of the quarter three members of the team qualified for the temporary Pathfinders Badge, and one enlisted member qualified for the permanent award of the Badge. Orders have been requested on the above individuals. In addition to the formal training each member of the team has been given extensive practical experience. The Detachment supported the night combat assault conducted on 31 October 1966 and did a truly professional job.

D. Chemical: None

E. Psywar: None

F. Other: Support of the Long Range Reconnaissance Patrols.. During the reporting period units of the 10th Combat Aviation Battalion have provided the helicopter support for long range reconnaissance patrols. Inclosure 2 of this report is a discussion of the techniques and procedures developed to accomplish these missions.

4. LOGISTICS:

a. Base Camp Activities:

(1) During the quarter, the battalion was involved in many projects to improve the facilities at Dong Ba Thin and the base development plan was upgraded to keep up with numerous changes. This was done with a minimum of personnel because the majority of the battalion was committed to combat operations.

(2) Detailed planning and most construction has been completed at the Dong Ba Thin military complex to provide facilities for the following units:

(a) Combat aviation battalion composed of three assault helicopter companies (UH-1) (A) and one assault support helicopter company (CH-47).

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company (0-1).

(b) One reconnaissance aviation

(c) One aviation company (fixed wing)

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(d) One engineer battalion (construction) reinforced with one company.

(e) One engineer group headquarters and headquarters company (construction).

(f) One transportation A/C maintenance company (direct support)

(g) One transportation A/C maintenance company (general support)

(h) One security company

(3) Initial planning phase has begun to provide facilities for the following additional units:

(a) One infantry brigade (separate)

(b) One artillery battalion (105)

(c) One engineer battalion (combat)

(d) One air cavalry squadron

(light)

(e) Two aviation companies (ambulance)

(f) US Air Force Team (FAC)

(g) One engineer company (combat)

(h) One engineer company (water supply)

acres reserved)

(i) One hospital (unknown size - 25

Command Sites.

(j) Two US Army Strategic Communications

(k) Numerous detachments for support.

(4) The Transportation Company (Aircraft Depot Supply) will not be coming to Dong Ba Thin. A small depot section is presently operating at Dong Ba Thin for a 90 day period. The CV-2 Company will go under operational control of the Air Force on 1 Jan 67 and it is assumed that they will be relocated sometime after that date.

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All units presently located at Dong Ba Thin are continually improving their areas on a "self help basis."

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(5) There have been several requirements this quarter for the 10th Combat Aviation Battalion to stage units at Dong Ba Thin for a short time. Temporary living areas used by units at Dong Ba Thin before they moved into their permanent areas were renovated and utilized for this purpose. The units were in comfortable living areas with all the conveniences enjoyed by the other units on the post.

(6) Forecasted troop strength for the complex is 8,100 officers and enlisted men by December 1967.

(7) As of 20 October 1966, the responsibility for base development planning at Dong Ba Thin was transferred from the 10th Combat Aviation Battalion to the 34th General Support Group. The Commanding Officer of the 10th Combat Aviation Battalion is still the Installation Coordinator of Dong Ba Thin and has all the other responsibilities associated with this duty.

(8) The supporting construction unit is the 577 Engineer Battalion (Construction), a subordinate unit of the 45th Engineer Group (Construction). Because of the high water table and the low swamp land, the major portion of the engineering effort has been required to provide fill and sand over the entire area. At least three to six feet of fill is required to provide a suitable base for vertical construction or hard stand.

To accomplish this fill, the 577th Engineer Battalion had one platoon of the 513th Dump Truck Company (24 dump trucks attached). However, during the quarter, most of the dump trucks have been committed elsewhere. Only eight dump trucks were left at Dong Ba Thin and these were committed to road maintenance of highway #1 and were operated out of Nha Trang.

A dredge (Dredge Bess) was brought into Dong Ba Thin to help with the required fill. Numerous problems were encountered in the operation of the dredge and it was finally sent back after only 65 dredge hours of operation during this past quarter.

(9) The 577th Engineer Battalion (Construction) is composed of two line companies, one maintenance company and one combat engineer company minus equipment that just arrived on 1 October 1966. Ten of the 24 dump trucks attached with the 513th Dump Truck Company are committed at Tuy Hoa and six are in field maintenance.

The 577th Engineers work around the clock and have many other projects besides Dong Ba Thin which normally have priority. This past quarter they have planned and constructed (or are constructing):

(a) A replacement area depot on Cam Ranh Peninsula to include a 4,000 man area complex.

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(b) A ROK Army Regimental Area

(c) A ROK Army Hospital in Nha Trang.

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(d) A 300 man PA and E Cantonment area
on Cam Ranh Peninsula.

(e) Maintenance of approximately 30
miles of Highway #1.

(f) Normal combat support missions,
which have first priority.

Construction of Dong Ba Thin normally
has had a lower priority than other projects which have required most
of the resources of the 577 Engineer Battalion.

(10) A great deal of construction has been
accomplished at Dong Ba Thin by the various units on a "self help" basis
with engineer supervision. Two complete cantonment areas have been
built to "standard four" construction. Other units have converted
temporary quarters to "standard four" construction. Many culverts have
been installed as well as wash racks, grease traps, additional shower
facilities, bunkers and numerous beautification and soil conservation
projects.

(11) As of 31 October 1966,
problems exist at Dong Ba Thin.

(a) The 10th Combat Aviation Battalion
has to furnish almost all of the personnel required to staff and operate
the various post details associated with installation activities. This
additional burden detracts the 10th Combat Aviation Battalion from carry-
ing out its primary mission of combat support.

A TD has been proposed by the
Battalion to the Cam Ranh Bay Support Command to make Dong Ba Thin
a sub installation to the Cam Ranh Bay Support Command Sub Area. Many
of the staff positions now required at Dong Ba Thin could become the
responsibility of and monitored by Cam Ranh Bay Support Command Sub
Area. The proposed TD includes a small staff to run the Dong Ba Thin
complex and administer general housekeeping of the complex.

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(b) The potable water source at Dong Ba Thin is inadequate to meet the increasing personnel strength. Test wells were drilled this past quarter to locate a potable source with negative results.

(c) A dredge or dump trucks are urgently needed at Dong Ba Thin to provide a three (3) to six (6) feet of fill for operational and contonement area. Future expansion of facilities on this complex is dependent upon this fill and at the present, no more construction can be done without additional fill.

b. Aircraft Maintenance

(1) The following statistics reflecting maintenance and availability during the reported period have been compiled from applicable DA Forms 1352:

UNIT	TYPE	A/C	ASSG	AVAIL	% EDP	% EDM	HOURS FLOWN
48th AHC	UH-1B	8	81.2%		8.0%	10.8%	1184
	UH-1D	22	83.0%		5.4%	11.6%	5156
	TOTAL		82.5%		6.1%	11.4%	6340
117th AHC	UH-1B	8	86.9%		2.9%	10.2%	980
	UH-1D	18	84.7%		4.0%	11.3%	4917
	TOTAL		85.4%		3.6%	11.0%	5897
129th AHC	UH-1B	7	77.0%		12.7%	10.3%	900
	UH-1D	21	79.7%		9.1%	11.2%	4693
	TOTAL		79.0%		10.1%	10.9%	5593
281st AHC (540)	UH-1B	9	82.9%		7.4%	9.7%	892
	UH-1D	16	88.1%		3.7%	8.2%	3174
	TOTAL		86.3%		5.0%	8.7%	4066
TOTAL AHC							
ASSG 10th CBT			83.1%		6.3%	10.6%	21896
AVN BN							
HHC, 10th CBT	UH-1B		59.2%		29.2%	11.6%	115
	U-6A		90.8%		1.3%	7.9%	162
	TOTAL						277
135th Avn Co	CV-2		81.1%		0.0%	18.9%	1203
AMFW							
183rd Ren	O-1E		79.0%		9.0%	12.0%	1792
Apl Co							
TOTAL FLYING HRS							26168

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(2) On 4 Sep 66 the 183d Reconnaissance Airplane Company and the 135th Avn Co AMFW were transferred from the 10th Cbt Avn Bn to the 223d Cbt Avn Bn.

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(3) The major problems effecting aircraft availability is the lack of critical main components in the supply system. The high life expectancy items such as engines, rotor blades, and main rotor hubs are being replaced at less than half TBO time. The primary cause for this problem can be contributed to erosion from sand and dust. The use of suppressive agents for dust and blowing sand in base areas has been of substantial benefit.

(4) During this reporting period the following major components have been replaced: 20 engines, 94 main rotor blades, 16 main rotor hubs, 111 tail rotor blades, 19 tail rotor hubs, 3 tail booms, 3 transmissions.

(5) The average engine life has improved since aircraft have been equipped with barrier filter kits but are still obtaining only an average of 550 hours per engine compared to 1100 hours TBO time. Main rotor blades are lasting an average of 400 hours compared to 2500 hours life expectancy.

(6) The 140th Transportation Detachment was moved from Tuy Hoa to Pleiku in October 1966. The move required overland transportation to Vung Ro Bay, surface transportation by LST to Quin Nhon and overland transportation from Quin Nhon to Pleiku. The detachment spent three days in preparation for the move after finishing the work on hand. Some time was lost in preparation because no firm date for the move was available until the day prior to the move. The move took three days. The first day was spent moving to Vung Ro Bay, loading the LST and traveling to Quin Nhon. The LST docked at 1400 hours on the second day. The convoy departed Quin Nhon on the third day at 0900 and arrived at Pleiku at 1830 hours. The unit required two days to set up operations and was only partially operational for the first 2½ days after setting up because they lacked critical items that were on a stake and platform that had broken down a short distance from Quin Nhon. The tractor was not replaced and the detachment had to send a tractor back to Quin Nhon to retrieve the trailer. The unit was non productive for the first 2½ days of operation in Pleiku.

c. Flight Safety

(1) The following is a review of the aircraft accidents and combat losses of the 10th Combat Aviation Battalion during the period 1 August - 31 October 1966.

	<u>R/W</u>	<u>F/W</u>	<u>Total</u>
Incident	3	1	4
Major Accidents	5	1	6
Combat Loss	3	0	3
Forced Landings	0	0	0

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(2) The following is a brief summary of each of the 3 combat losses.

29 (a) 21 August 1966 - A UH-1D was on final approach to a unsecure pickup zone when it was raked by automatic weapons fire. The hydraulic system failed followed by anti-torque failure. The aircraft struck the ground and was totally destroyed. All personnel were uninjured and evacuated safely.

(b) On 7 October a UH-1B was on a firing pass to a VC position when it went out of control and crashed killing all 4 crew members. During the investigation it was deduced that the pilot was hit by ground fire and the co-pilot was unable to regain control prior to the crash. This finding was verified by bullet holes in the structure and in the pilots windshield.

(c) On 29 October a UH-1D was hovering over the jungle canopy discharging cargo when it was struck by automatic weapons fire. The crew saw smoke and the aircraft attitude changed drastically indicating control damage. The pilot managed to fly the aircraft for 5 miles to a cleared area and landed. The fire had continued to burn and the aircraft was totally destroyed by it. The crew was rescued in 10 minutes without injury.

(3) The following is a brief summary of each of the 6 major accidents.

(a) On 1 August a UH-1 was sling loading a main rotor blade. The blade oscillated into the main rotor blades causing the aircraft to crash killing all four crew members.

(b) On 6 August a UH-1 was flying low and during a turn to base leg the rotor blades struck the water. The aircraft was totally destroyed. The crew was rescued by fishermen. No injuries.

(c) On 13 August an Ol-E became trapped in a blind canyon and was unable to climb out. It crashed into trees. The crew escaped uninjured.

(d) On 25 September a UH-1 took off into instrument conditions and crashed during the take off and the aircraft was totally destroyed. Two crew members were killed.

(e) On 25 October a UH-1 flew into unmarked wires near a helipad. The aircraft was totally destroyed. There were no injuries.

(f) On 29 October a UH-1 was on take off when a stump was struck by the right skid. The aircraft tipped over and was totally destroyed. There were no injuries.

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(4) An analysis of the losses suffered during this period shows that the accidents occurring during administrative flight are more of the "Bonehead" type than those suffered during actual combat operations. It is felt that during assaults the aviators are "keyed up", fly under more control and supervision and do the mission in a professional manner. It is the man flying the resupply mission in a single ship that tends to become complacent and casual in his procedures that causes these embarrassing accidents. Recognizing these facts the standardization program is being intensified and the safety officer is evaluating the operation to eliminate all the hazards possible in all operations. Additionally all units are intensifying their control and supervision of the aviators stressing that an aviator who expects to survive remains alert and professional during all flights.

5. CIVIL AFFAIRS - None

6. (C) PERSONNEL

a. The officers and enlisted strength of the 10th Combat Aviation Battalion on 312400 October is summarized below:

UNIT	AUTHORIZED			TOTAL	ASSIGNED & ATTACHED			TOTAL
	Off	WO	EM		Off	WO	EM	
HHC	24	3	121	148	40	4	276	320
48th AHC	16	42	219	277	40	19	252	311
117th AHC	16	42	219	277	26	30	210	266
129th AHC	16	42	219	277	25	31	226	282
180th AHC	14	26	228	268	28	7	209	244
281st AHC	16	42	219	277	23	23	203	249
Total	102	197	1225	1524	182	114	1376	1672

b. A review of the above statistics reveals an understrength of Warrant Officers and a net understrength of Warrant Officers and Officers assigned and attached as indicated below:

UNIT	PERCENT UNDERSTRENGTH		NET PERCENT UNDERSTRENGTH
	OFF	WO	
HHC	None	None	None
48th AHC	None	54.7%	None
117th AHC	None	28.5%	3.4%
129th AHC	None	26.1%	3.4%
180th AHC	None	73.0%	12.5%
281st AHC	None	42.1%	20.5%
Battalion Total	None	42.1%	1.0%

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31 c. An examination of the statistics reveals a serious imbalance in grade structure existing within the Assault Helicopter Companies. Frequently positions are occupied by an officer two grades higher than that authorized by TOE. This problem is recognized by higher headquarters and ostensibly there is no solution to the problem short of training more Army aviators. Further, the magnitude of the problem is manifested in the present for duty strengths and the corresponding shortages or understrengths as shown below:

UNIT	PRESENT FOR DUTY		PRESENT FOR DUTY/PERCENT UNDERSTRENGTH		
	Off	WO	Off	WO	Off & WO
HHC	33	2	None	33.3%	None
48th AHC	28	17	None	59.5%	22.4%
117th AHC	18	19	None	54.7%	36.2%
129th AHC	19	23	None	45.2%	29.3%
180th AHC	15	3	None	88.4%	55.0%
281st AHC	20	16	None	61.9%	20.6%
Battalion Total	133	80	None	59.3%	28.7%

d. A comparison of the present for duty strengths with the assigned and attached strengths shown in 1a above reveals significant differences. The present for duty strengths of the 180th Assault Helicopter Company (MDM) are low due to a large number of aviators that are TDY and flying with another unit. The 180th AHC is a newly arrived unit in Vietnam and should not be considered as a representative unit of the battalion. On the other hand, a comparison of the remaining companies clearly shows that a large divergence exists between numbers assigned and numbers present for duty. The net difference of officers and warrant officers assigned and attached from those present for duty extends from a low of zero to a difference of 32.8%. The preponderance of people that contribute to this large difference in numbers can be accounted for as transients, both inbound and outbound. A relatively few can be accounted for as people on leave, R&R, etc.

e. In summary, units of the 10th Combat Aviation Battalion will continue to perform combat missions with far fewer numbers of aviators than those authorized by TOE. Moreover, based on the past experience of large numbers of transients (inbound and outbound), organic units will never approach a present for duty strength that is in proximity or equal to assigned and attached strength, even if assigned and attached strength is 100% of those authorized.

7. ARTILLERY - None

8. (C) SIGNAL

a. During this quarter the 10th Combat Aviation Battalion has operated a base camp headquarters and a field command post to carry out its

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dual function of combat support and base development coordination. This division of the battalion staff generates a requirement for communications that exceeds the capability provided by TOE 1-76E. Extensive use of the area communications network has been made to augment the organic communications capability. As of this date, the reliability and responsiveness of the area communication system has not proven adequate to eliminate the requirement for additional communications personnel and equipment. This unit continues to use high frequency, single side band radios removed from aircraft as the primary means of telephone and teletypewriter communications between the forward command post and higher headquarters. Modification proposals for TOE 1-76E and TOE 1-256F were submitted during 1st quarter FY 67. Either of these MTOE proposals would reduce this problem area if approved.

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SECTION 2 (C) COMMANDER'S OBSERVATION AND RECOMMENDATIONS

Part I, Observations

1. (C) PERSONNEL

a. Item: Infusion program

Discussion: A temporary decrease in combat efficiency occurred in two of the assault helicopter companies due to the loss of a large number of personnel at one time.

Observation: The infusion program is an effective measure to combat this problem.

2. (C) OPERATIONS

a. Item: Night combat assaults.

Discussion: During the reporting period the 10th Combat Aviation Battalion conducted four battalion size night combat assaults plus several company size and smaller night assaults. These operations were conducted under varying light and weather conditions.

Observation: Night combat assaults can be successfully carried out under certain conditions. For large and complex operations a minimum of twenty-four hours should be made available to the aviation battalion for planning and coordination. Training of crews in night operations is a must.

b. Item: Marking and identification of night landing zones and check points.

Discussion: Under minimum light conditions one of the most difficult problems encountered is navigation and identification of landing zones. The 10th Combat Aviation Battalion experimented with several methods to assist the flights in getting to and locating the landing zone. On one occasion the release point was in the vicinity of a Special Forces camp. The camp commander upon request agreed to light the "flaming arrow" (an arrow with a series of number 10 cans filled with sand and gasoline) and pointed it in the direction of the LZ. Other units in field locations either on or near the intended flight path of the flight have provided similar assistance when the tactical situation permitted. Railroad fuzes which burn for twenty minutes were tested and found very useful for marking LZ's, ACP's and PZ's. They were found to be very useful in the LZ's since they emit a red light and do not have the blinding effect of flares. The lightgun* has been found to be very effective method of identifying the LZ to flight leaders when Pathfinders were introduced into the landing zones particularly when secrecy was important.

Observation: There are a number of methods of assisting the flight leaders in night navigation and locating the LZ. The methods mentioned above

* Lightgun SE-11

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are but a few. To insure success of night operations commanders should provide the maximum amount of navigational assistance possible.

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c. Item: Illumination for night combat assaults.

Discussion: The 10th Combat Aviation Battalion tested several methods of illumination for night combat assaults. Artillery illumination, Air Force flareships and UH-1D's loaded with flare aircraft, parachute MK-24 flares were all employed during night operations. The latter (UH-1D's) were found to be the most effective and responsive. One of the most important reasons for the UH-1D's being the most desirable was that the pilot was able to attend the briefing for the operation and be was completely familiar with all the details of the operation. In addition, it was found that due to the critical availability of Air Force flareships their presence could not be assured until the last minute. The position of the flare drop in relation to the flight path of the aircraft is of great importance. A flare dropped directly to the front of the flight will have a blinding effect. Wind direction also is important because of the drift of the flares. It was determined that flares dropped to the rear and side away from the direction of turn of the flight produced the most favorable lighting without producing a blinding effect. The flares should be started at least three minutes from touchdown to allow the pilots eyes to adjust to the light. Continuous illumination during the landing and departure phase is absolutely necessary. A break in the illumination during this portion of the assault could be disastrous.

Observation: Combat aviation battalions have the capability of providing illumination for night combat assaults. Crews should be trained in the proper method and procedures of using the MK-24 flares prior to the time they are assigned the mission of providing illumination for a combat assault.

d. Item: Standby flareship and gunships.

Discussion: The 10th Combat Aviation Battalion maintains a minimum of one flareship (UH-1D) loaded with flare aircraft, parachute MK-24 flares and two gunships on a five minute alert status during the hours of darkness. These aircraft are constantly requested to assist infantry units under attack and to assist and escort medical evacuation aircraft. They also provide an immediate reaction in the event of a ground attack of the base area.

Observation: The standby aircraft provide the ground commander with an immediate illumination and fire support capability.

e. Item: Helicopter Lighting System (HLS)

Discussion: During the period 1 August 1966 to 20 September 1966, the 48th AHC conducted night harassment and interdiction missions employing the HLS within the Task of the 1st Bde, 101st Abn Div. The purpose of these missions was to determine feasibility and develop tactical procedures in HLS employment. The 1st Bde, 101st Abn Div furnished two infantry

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35 liaison officers to assist and designated an operational area to conduct these studies. The operational area was the Song Dai Giang River valley in Thin Phu Yen Province, Vietnam. This area was relatively flat, interrupted with heavily wooded stream beds, small villages and tree lines. Operations were conducted under varying light and weather conditions and at unscheduled intervals during the night.

Different armament subsystems were tested by the escort gunships to include a .50 cal machine gun mounted in a UH-1D.

Principal employment evolved to the use of a command and control aircraft (UH-1D) mounting the HLS escorted by two armed aircraft. The operational area was searched clandestinely by the use of starlight scopes furnished by the 1st Bde. These were operated by the infantry liaison officers aboard the command and control aircraft. The HLS was engaged whenever a suspicious activity was noted by the starlight scopes. The HLS served to illuminate as well as furnish pinpoint identity to the escort gunships. During the period of trials no enemy activity was evident, consequently the total evaluation of the HLS was limited in scope.

Observation: The employment of the HLS has certain deterrent effects upon enemy activity conducted at night.

That the HLS is not extremely effective in locating and fixing targets in operational areas that are not flat and open.

That the HLS is hampered by weather conditions of low visibility.

HLS crews should be trained as a team and drilled in procedures to attain maximum effectiveness.

3. (C) TRAINING

a. Items: Night training

Discussion: The 10th Combat Aviation Battalion conducted extensive night training for all of the assault helicopter companies. The training included individual, platoon, company and then battalion size operations. During the initial stages of the training the operations were not performed in an acceptable manner. However, the later exercises were executed in a professional manner.

Observation: Night training should be conducted on a continual basis whenever the tactical situation permits. The more the crews work together in the cockpit, in flights and with the pathfinders the greater their abilities and confidence.

b. Item: First aid training

Discussion: On numerous occasions "slick crews" are required to perform emergency medical evacuation missions. Crew chiefs and gunners

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should be familiar with the life saving steps to assist wounded personnel carried on their aircraft. All crew members have received first aid training at one time or another; however, many had received the training years ago. In addition, there is now a greater incentive to learn now that they are so close to the battlefield.

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Observation: Crew members have a definite need to remain proficient in first aid techniques. First aid training should be conducted on a continual basis to insure that the crew member have the ability and confidence to assist wounded personnel when and if required.

c. Item: Airmobile training

Discussion: During this reporting period the 10th Combat Aviation Battalion had occasion to support US units that had recently arrived in country. The situation permitted very little time for training. It was observed that many of the new troops removed their load bearing equipment and packs while enroute to the landing zone. The result was confusion and excessive time spent on the LZ after landing.

Observation: Aviation units should be alert for this point when supporting newly assigned units and should brief commanders prior to each operation. When possible aircraft should be made available to newly assigned units for refresher training prior to the conduct of their first combat assault.

d. Item: Transition training

Discussion: The 10th Combat Aviation Battalion recently had four aviators assigned that were not UH-1 qualified. Two were cargo helicopter rated; however, two of these aviators required complete transition training.

Observation: The transition training is being conducted and will be completed shortly. However, the instructor pilots and the aircraft required for this training had to be taken from combat resources.

4. (C) INTELLIGENCE

Item: Security of Classified Information

Discussion: USARV Regulation 95-10 dated 22 December 1965 requires that the Commanders Operational Report (OPREP 5) be phoned to USARV Aviation Office, using the format prescribed in USARV Form 265 which is unclassified when blank and classified CONFIDENTIAL when completed. In this battalion, the companies phone the information to battalion, where the information is consolidated and phoned to 17th Combat Aviation Group. 17th Group consolidates reports from all battalions and phones the consolidated report to USARV. All of these telephonic reports use the format prescribed in USARV Form 265.

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Observation: Since USARV Form 265 is unclassified until completed, it is kept with other unclassified blank forms, and is thus readily available throughout Vietnam with little difficulty to anyone interested in obtaining a copy. It must be assumed that the Viet Cong have, or can easily obtain, copies of the form. It must also be assumed that the Viet Cong have the ability to monitor phone conversations. Once these two assumptions are accepted, it is obvious that the Viet Cong have the capability of duplicating supposedly CONFIDENTIAL OPREP 5 Reports. It is also obvious that the present system of telephonic reports using the format in USARV Form 265 does not provide any security to the reported information.

5. (U) LOGISTICS

a. Item: The miniport system

Discussion: The miniport refueling system has proved to be an essential item for the combat assault helicopter companies. However, the refueling rate of 25 GPM is too low to provide rapid refueling. The flow rate of 25 GPM appears to be valid only for new equipment. The miniports that are presently in use are producing only 8 to 12 GPM. These systems have been in use since June 1966. Repair parts and replacement of major components has done little to improve the efficiency of the equipment.

Observation: Every effort is being made to improve the efficiency of the systems on hand. Consideration should be given to designing a similar system with a greater output.

b. Item: Crew chief and gunner intercom system UH-1

Discussion: The present intercom system is not adequate for operational requirements in Vietnam. The cords should be of sufficient length to permit the crew chief and gunner to dismount to assist in loading and off-loading and still remain in communication with the aircraft commander.

Observation: A reel with a cord of approximately 20 feet in length installed on either side of the aircraft would provide freedom of movement for the crew chief and gunner. The cord should be on a retractable reel. This matter is being studied and it is hoped that the cords and reels can be locally produced.

6. (C) New Unit Movement to Vietnam

a. Item: Advance Party

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Discussion: The 180th Combat Support Helicopter Company (CH-47) found that an advance party of two officers was insufficient to cover the many areas of interest for the unit. Supply accounts had to be established, administrative publications requisitioned and operations publications accounts established.

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Observation: An advance party composed of two officers and enlisted representatives of supply, maintenance, operations and unit administration should arrive in country a minimum of thirty days in advance of the main body. In the event the unit is programmed to a secure area where no facilities are readily available, an additional ten enlisted men should be included in the advance party to erect tents, etc. for the main body.

b. Item: Change in mode of transportation.

Discussion: The initial directive moving the 180th Assault Support Helicopter Company directed that the movement of the main body would be by surface transportation from the west coast. Planning and preparation of the unit's minimum essential equipment was directed along these lines. Equipment was packed in CONEX containers, rear and advance party personnel selected, and preparations for movement initiated. In September, less than thirty days prior to the scheduled shipping date, while the majority of the unit's personnel were on leave, the mode of transportation was changed from surface to air. This change required that all equipment be repacked and palletized for air movement, the rear and advance party personnel changed, numerous changes in leaves had to be made and other administrative actions had to be taken.

Observation: Changes in the mode of transportation at the last minute creates many problems for the unit moving.

c. Item: Reception of Unit (Administration)

Discussion: On arrival in country, new units have no in-country regulations or publications (USARV Regulations, etc.) with which to operate. Normal requisitions submitted for these publications require 30 to 60 days to be filled, which results in delayed and possible incorrect reports.

Observation: A packet of all in-country publications could be prepared and issued to a new unit scheduled to move to Vietnam well in advance of their arrival. This would insure correct and timely reports. Additionally all personnel would have advance preparation in the method of operation in Vietnam.

d. Item: Packing and Crating

Discussion: In an effort to conserve space and reduce the number of CONEX containers required to move the 180th Combat Support Helicopter Company's TOE equipment, equipment was packed with little regard to section integrity. In preparing the container packing list, notations were not made as to which section the items belonged. The effort to conserve

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space, and the lack of information on the packing list resulted in having to inventory each container separately and re-issue all TOE equipment to the sections.

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Observation: Units departing the US should use great care in packing their equipment to insure they know which containers their equipment is packed.

e. Item: Air Transportation

Discussion: During the air movement of personnel of the 180th Assault Support Helicopter Company to the Republic of Vietnam, two C-130 aircraft were held in the Phillipines overnight because the aircraft could not land at Nha Trang during hours of darkness. The Troop Commander, Commanding Officer, 180th Aviation Company, attempted to arrange for billets for the troops but was informed that none were available. Due to the lack of billets, the men were required to sleep on the ramp area. With proper coordination, the two aircraft could have flown to Con Ranh AFB where they could have landed during the hours of darkness, and the men billeted in the area prepared for them at Dong Ba Thin.

Observation: It would appear that more consideration could have been given to these personnel on their way to a combat zone.

Part II, RECOMMENDATIONS

1. Personnel - None

2. (C) Operations

a. (Reference Section 2, Part I, 2b). Recommend that all aviation units be advised that the railroad fuzes are an effective aid when conducting night combat assaults. The fuzes are available at the ammunition supply points.

b. (Reference Section 2, Part I, 2c). Recommend that emphasis be placed on training all aviation units in the techniques of illumination of LZ's for night combat assaults. *Fck HV*

c. (Reference Section 2, Part I, 2e). Recommend that consideration be given to conducting frequent and unscheduled harassment missions solely for the deterrent effects achieved. That clandestine sensing and observing equipment such as the starlight scope be utilized to pinpoint enemy activity as opposed to searching by HLS. That HLS be employed primarily along such routes as roads, navigable rivers and well traveled trails.

3. (C) Training

a. (Reference Section 2, Part I, 3c). Recommend that aircraft be made available to newly assigned infantry units to conduct refresher training in air-borne operations prior to their commitment to combat operations.

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b. (Reference Section 2, Part I, 3d). Recommend that all aviators assigned by Department of the Army to Combat Aviation Groups in Vietnam, except those specifically assigned for fixed wing units, be given transition training in the UH-1 prior to their departure from CONUS.

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4. (C) Intelligence

(Reference Section 2, Part 1, 4a). Recommend that a new format be designed for reporting OPREP 5 information and that the format be classified CONFIDENTIAL even when blank. Since the format would then be safeguarded as other CONFIDENTIAL information it could be used for telephonic reports since copies of the format would not be available to unauthorized persons. The same recommendation applies to any other classified reports which are made telephonically in a format which is unclassified.

(U) Logistics

(Reference Section 2, Part I, 5a). Recommend consideration be given to designing a miniport refueling system with a larger capacity and increased flow rate to facilitate refueling operations during combat assaults.

2 Incl

1. OPORD 25-66
2. LRRP Support


BENJAMIN L. HARRISON
Lt Col, Infantry
Commanding

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AVGD-SC

1st Ind

SUBJECT: Operational Report for Quarterly Period Ending 31 October 1966,
(RCS CSFOR - 65) (U)

HEADQUARTERS 17TH COMBAT AVIATION GROUP, APO 96240

13 November 1966

TO: Commanding General, I FFORCEV, APO 96240

1. (U) The 10th Combat Aviation Battalion Operational Report for Quarterly period ending 31 October 1966 is forwarded for information and action.

2. (C) This Headquarters concurs with Part II recommendations as modified herein.

a. Reference paragraph 2a concur.

b. Reference paragraph 2b. concur.

c. Reference paragraph 2c In the highlands and coastal regions the Helicopter Lighting Systems, (HLS) for night illumination have had very limited success. Several factors influence results of HLS, rough terrain, vegetation, haze or fog reduces the effectiveness of this system. Some benefits can be gained using the HLS under more ideal conditions, however it cannot be considered reliable.

3. Reference paragraph 3 Airmobile assets are not available to conduct refresher training for newly arrived infantry units. This proposal would be desirable if adequate aviation assets were available i. e., aircraft and crews.

b Reference paragraph 3b concur.

4. Reference paragraph 4 concur.

5. Reference paragraph 5 concur.

6. The Lessons Learned and Commanders Recommendations will be disseminated to Combat Aviation Battalions assigned to this Headquarters.

FOR THE COMMANDER:

[Signature]
FRANKLIN L. WILSON
LTC, Infantry
Adjutant

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2

Regraded unclassified
when separated from
classified inclosures
Regrade UNCLASSIFIED when
separated from CLASSIFIED material

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AVFA-GB (18 Nov 66) 2d Ind
SUBJECT: Operational Report on Lessons Learned

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Headquarters, I Field Force Vietnam, APO San Francisco 96350 2 DEC 1966

TO: Commanding General, 1st Aviation Brigade, APO
US Forces 96307

FROM: Commanding General, United States Army Vietnam, APO
US Forces 96307

1. (U) The 10th Combat Aviation Battalion Operational Report for the period ending 31 October 1966 is forwarded for information and action.
2. (C) This headquarters concurs with the recommendation as modified herein.

a. Section E, Part I, para 4. Observations are valid. Operational and battle reports which contain information of value to the enemy are to be classified CONFIDENTIAL or CONFIDENTIAL, MODIFIED HANDLING AUTHORIZED (para 3 Appendix III, AR 380-5). Report should be transmitted using KAC codes.

b. Section II, Part 2, para 4. Recommendation is invalid. The transmission of classified information in clear text is prohibited. Extraction of statistics from a classified form in no way decreases the requirement for communications security. The use of plain text to transmit a formatted report offers no security if the enemy is intent on recovering the format. Transmissions of classified information must be encrypted.

FOR THE COMMANDER:

William H. James
WILLIAM H. JAMES
Colonel, AOC
Adjutant General

DOWN GRADED AT 3 YEAR INTERVALS
DECLASSIFIED AFTER 3 YEARS
DOD DIR 5200.10

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43
AVBA-C (18 Nov 66)

3rd Ind

SUBJECT: Operational Report Lessons Learned (10th Combat Aviation Battalion) for Quarterly Period Ending 31 October 1966 (RCS CSFOR-65)

HEADQUARTERS, 1ST AVIATION BRIGADE, APO 96307 10 DEC 1966

TO: Commanding General, United States Army, Vietnam, ATTN: AVC-DH, APO 96307

1. The 10th Combat Aviation Battalion Operational Report Lessons Learned for the period ending 31 October 1966 is forwarded for information and action.

2. This headquarters concurs with the recommendations with the additional comments.

a. Reference section II part 1 paragraph 5a: To increase the refueling capability of assault helicopters and assault support helicopter companies, particularly during combat assault operations, a change to these unit's TOE was proposed in June 1966 adding 13 each 30/40 GPM and 6 each 100 GPM lightweight airmobile pumps for assault helicopter companies, and 16 each 100 GPM pumps for assault support helicopter companies. This was approved by DA, and these pumps are currently arriving in RVN.

b. Reference section II part 1 paragraph 5b: Crew chief and gunner intercom. The problem of drop cord extensions is being taken under study by the Signal Officer, 1st Aviation Brigade based on the reports of the 10th, 52nd and 223rd Combat Aviation Battalions.

FOR THE COMMANDER:

2 Incl
nc



W. RIVERA
Captain, AGC
Asst Adjutant General

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Regraded unclassified
when separated from
classified inclosures

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AVHGC-DH (10 Nov 66) 4th Ind
SUBJECT: Operational Report-Lessons Learned for the Period Ending
31 October 1966 (RCS CSFOR-65)

HEADQUARTERS, UNITED STATES ARMY VIETNAM, APO San Francisco 96307 09 JAN 1967

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOF-OT
APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the period ending 31 October 1966 from Headquarters, 10th Combat Aviation Battalion as indorsed.

2. Pertinent comments are as follows:

a. Reference Paragraph 6c, Part I, Section II, Page 6:

(1) The need for publications packets for units deploying to Vietnam was recognized by this headquarters during the early stages of the build-up in RVN. In April 1966, this headquarters began mailing complete publication packets to CONUS based divisions, brigades, support commands, and separate battalions scheduled for deployment to Vietnam. USARV regulations and circulars are an automatic part of the packet and contain all directives that have an A, B, C, and X distribution.

(2) The 10th Combat Aviation Battalion arrived in-country on 25 October 1965. Since that date, all command formula distribution has been automatically sent to them through their group headquarters. Resupply of publications is accomplished by submission of requisitions to this headquarters. Requisitions are filled and in the mail within 24 hours. Reporting headquarters was briefed on the publications supply system during an assistance visit by a team from this headquarters on 22 December 1966.

b. Reference Paragraph 2a, Part II, Section II, Page 7: Concur to the extent that the fuzes be relied upon as an alternate means of marking LZ's, ACP's, and PZ's. Fuzes are subject to causing fires in grass and wooded areas and do not offer the degree of security from enemy observation as do present lighting systems used by pathfinder teams.

c. Reference Paragraph 2b, Part II, Section II, Page 7: Concur. It is desirable to have crews of the participating unit provide illumination in these instances because of ease of coordination, experience and intimate knowledge of the terrain.

REGRADED UNCLASSIFIED WHEN SEPARATED
FROM CLASSIFIED ENCLOSURES

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AVHGC-DH (10 Nov 66)

SUBJECT: Operational Report-Lessons Learned for the Period Ending
31 October 1966 (RCS CSFOR-65)

d. Reference Paragraph 2c, Part II, Section II, Page 7: Concur. Favorable results can be achieved when the Helicopter Lighting System is used discriminately. Concur with paragraph 2c, 1st Indorsement, that vegetation, terrain and weather conditions reduce the effectiveness and reliability of the system.

e. Reference Paragraph 3a, Part II, Section II, Page 7: Non-concur. Refresher training would serve to detract from the limited assets available to support tactical operations. A degree of refresher training could be achieved by initially assigning newly arrived units to operations which do not require immediate and extensive contact with an enemy force. Concur with comments of paragraph 3, 1st Indorsement.

f. Reference Paragraph 3b, Part II, Section II, Page 8: Concur. *For*
The assignment of aviators not qualified in the UH-1 to units in RVN reduces the combat ready posture of the unit and reduces the number of flying hours available to support combat operations; however, the quantity is not currently significant.

FOR THE COMMANDER:



R. J. THORNTON
1st Lt, AGC
Asst Adjutant General

2
X Incl
nc

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GPOP-OT (10 Nov 66)

5th Ind (U)

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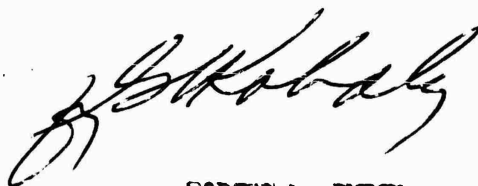
SUBJECT: Operational Report-Lessons Learned for the Period Ending
31 October 1966 (RCS CSFOR-65), HQ 10th Cbt Avn Bn

HQ, US ARMY, PACIFIC, APO San Francisco 96558 16 FEB 1967

TO: Assistant Chief of Staff for Force Development, Department of the
Army, Washington, D. C. 20310

This headquarters concurs in the basic report as indorsed.

FOR THE COMMANDER IN CHIEF:



ROBERT L. BURCH
Lt Col, AGC
Asst AG

2
1 Incl
nc

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RECLASSIFIED WHEN
CLASSIFIED FROM CLASSIFIED
DATE 2005/01/01

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OPORD 25-66

Reference: Map, 1:50,000 SVN, series, sheets 6852 II, III; 6851 I, II, III, IV; 6850 I, II, III, IV; 6849 I, II, III, IV; 6752 I, II; 6751 I, II; 6750 I and II.

1. SITUATION

a. Enemy: Current Intsum

b. Friendly:

(1) 1st Bde, 101st Abn Div conduct search and destroy operation to locate and destroy VC/NVA Forces in AO.

(2) 1/327 Inf moves overland by vehicle to vic BQ8745 during daylight hours and at H-hour conducts clandestine infiltration into assigned AO.

(3) 2/327 Inf conducts airmobile infiltration into area Apache at H-hour following the insertion of pathfinders and LZ security element.

(4) Other - Current operation overlay.

c. Attachment and Detachments:

Four CH-47's from 179th Assault Support Helicopter Company (CH-47).

2. MISSION

10th Combat Aviation Battalion helilifts 2/327 Abn Inf Bn, 1st Bde, 101st Abn Div in a non-illuminated night combat assault into LZ RED (BQ 810337) and then into LZ BLUE (BQ919337) commencing 312230 Oct 66. As a deceptive measure the 10th Combat Aviation Battalion will conduct a simulated combat assault into LZ MOONBEAM (BQ788483) commencing 302100 Oct 66.

3. EXECUTION

a. Concept of Operation:

PHRASE I

Battalion (-) conducts a night combat assault into LZ MOONBEAM (BQ788483) utilizing 24 UH-1D's, 6 UH-1B's and 4 CH-47's. The 48th Assault

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GROUP-4
Downgraded at 3 year intervals:
Declassified after 12 years.

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Helicopter Company (A) (ALPHA FLIGHT) will lead the assault with 12 UH1D's followed one minute later by the 129th Assault Helicopter Company (A) (BRAVO FLIGHT) with 12 UH1D's followed one minute later by 4 CH47's from the 179th Assault Support Helicopter Company (CHARLIE FLIGHT). After completing the landing in LZ MOONBEAM all flights will proceed along route JANE (Annex A Operations Overlay) to Vagabond Valley. Gunships from the 129th Assault Helicopter Company will be prepared on order to conduct a pre-strike of LZ MOONBEAM from A-35 to A-15. Gunships from the 48th Assault Helicopter Company will conduct a pre-strike of the LZ from A-5 to A hour following the artillery preparation which will be fired from A-15 to A-5 (last round marked by illuminating round). Flaeship from the 48th will provide continuous illumination of the LZ area from A-5 to completion of assault. After CH-47's have completed landing the flaeship will drop flares North of route JANE until flight has cleared ACP 3.

PHASE II

(1) The 48th will insert the Pathfinder Detachment (-) 10th Combat Aviation Battalion into LZ RED (BQ810337) after making a landing into LZ GOLD (BQ755352). After the Pathfinder Detachment (-) and a security force from Company C 2/327 has been inserted into LZ RED another landing will be made into LZ YELLOW (BQ883383). Approaches into all LZ's will be at low level. Alpha time for LZ RED is 311835H Oct 66. Gunships from the 48th will provide fire support on call but will not fire any preparatory fires on any of the LZ's. On landing in each LZ aircraft will remain on the ground for a minimum of 20 seconds unless enemy fire is received.

(2) The 129th will insert a team from the Pathfinder Detachment plus a security force from Company A, 2/327 Inf Bn, into LZ BLUE (BQ919337) after making a landing in LZ GREEN (BQ923365). After the insertion has been completed the flight will proceed to LZ SILVER (BQ958348) where another landing will be made. Approaches into all LZ's will be at low level. Alpha time for LZ BLUE is 311835H Oct 66. Gunships from the 129th will provide fire support on call but will not fire any preparatory fires on any of the LZ's. Aircraft will remain on the ground for a minimum of 20 seconds in each LZ unless enemy fire is encountered.

PHASE III

10th Avn Bn (-) helilifts 2/327 (-) Inf Bn into LZ RED utilizing flights Alpha and Bravo and then into LZ BLUE utilizing flight Alpha, Bravo and Charlie commencing 312230 Oct 66. 48th Gunships will follow Bravo flight along their flight route until reaching the vic of Orbit Road, then orbit over Orbit Road at 2500' until relieved by gunships from 129th. 129th Gunships follow Bravo flight on 2d lift and relieves 48th Gunships at Orbit Road.

b. Fire Support

PHASE I

Airstrikes A-40 to A-20

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Artillery prep. A-15 to A-5
48th Gunships prep. A-5 to H hour.
Artillery and gunship available on call.

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PHASE II

Gunships provide over head cover for flights as directed by Alpha and Bravo flight leaders. Artillery available on call.

PHASE III

48th Gunship will follow Bravo flight on 1st lift and remain in vic of Orbit Road at 2500' and will return and refuel at Tuy Hoa when relieved by 129th gunships. 129th gunships will follow Bravo flight 2d lift to Orbit Road to provide continuous over head cover. Artillery available on call.

c. 48th Assault Helicopter Company (A)

- (1) Designate flight leader for Alpha flight.
- (2) Provide gunship support (3 UH-1B's).
- (3) Provide 14 UH-1D's (12 Slicks, 1 Flare, 1 C&C).

d. 129th Assault Helicopter Company (A)

- (1) Designate flight leader for Bravo flight.
- (2) Provide gunship support (3 UH-1B's).
- (3) Provide 14 UH-1D's (12 Slicks, 2 Spares).

e. 179th Assault Support Helicopter Company (CH-47)

- (1) Provide 4 CH-47's.
- (2) Designate flight leader for Charlie flight.

f. Pathfinder Detachment

- (1) Provide lighting in PZ BEACH at 302000H Oct 66 for PHASE I.
- (2) Provide lighting in PZ BEACH at 312130H Oct 66 for PHASE III.
- (3) Inserted into LZ RED and LZ BLUE at 311835 Oct 66.
- (4) Provide lighting and landing instruction to landing aircraft in LZ RED and LZ BLUE.

g. Coordinating Instruction

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- (1) Air Movement Plan: Annex C.
- (2) Air Loading Plan: Annex B.
- (3) Altitudes: 1500' enroute to LZ
2000' return to PZ
3000' on route JANE
- (4) Navigation lights on steady dim, lower portion taped.
- (5) Weather Decision:
 - (a) Phase I 302000 hours by LTC Harrison.
 - (b) Phase II 311730 hours by Alpha and Bravo FLT leaders.
 - (c) Phase III 312030 hours by LTC Harrison
- (6) Weather delays: If weather precludes lift at A hour aircraft will remain on strip alert until weather clears for lift.
- (7) Rules of engagement: After gunship prep in Phase I no fire unless in direct radio contact with ground element and upon approval of Commanding Officer, 10th Combat Aviation Battalion.
- (8) Each unit will have a back up maintenance team available at Tuy Hoa to repair or rig downed aircraft.

PHASE III

- (9) Last aircraft in LZ RED from Bravo flight turn off lights after landing and load pathfinders and return to PZ.

Last two sorties of CH47A's in LZ BLUE load pathfinders and return.

- (10) Debriefing at Bn TOC on call.
- (11) Flare Ship.
 - (a) Phase I: Orbit Flare @ 3000'.
 - (b) Phase II: On call-Orbit RP 3000'.
 - (c) Phase III:
 1. LZ RED: Orbit Point Island @ 3000'.
 2. LZ BLUE: Orbit Point Hill @ 3000'.

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(12) Dust Off:

- (a) Phase I: Orbit Dust Off @ 3000' 2030-2100 hours.
- (b) Phase II: Orbit Dust Off @ 3000' 1830-1900 hours.
- (c) Phase III: Orbit Dust Off @ 3000' 2230-2400 hours.

(13) Spare aircraft follow Bravo flight by 3 minutes then orbit RP at 2000' until last aircraft has departed LZ.

(14) Reporting points: Off parking area Vagabond, off PZ ACP #1, 2, 3, and RP.

4. ADMINISTRATION AND LOGISTICS

- a. Refuel miniports.
- b. Refuel prior to lift to 1200 lbs, after lift company SOP.
- c. Evac wounded personnel to 101st Aid Station. Contact Vital Caves M FM 41.4.

5. COMMAND AND SIGNAL:

a. Command:

- (1) AMTF Commander: Lt Col Wasco.
- (2) Mission Commander: LTC Harrison.
- (3) Alt Mission Commander: Major Roper (in flare).

b. Signal:

- (1) Command Freq: FM 45.3, UHF 237.7, VHF 122.7.
- (2) Alt Command Freq: FM 40.6.
- (3) Gunships w/comm: FM 45.3.
- (4) Dust Off w/comm: Primary UHF 237.7, Alt FM 45.3.
- (5) Pathfinders PZ: 40.6 Dawson Piker 26
LZ BLUE 45.3 Dawson Piker Blue
LZ RED 45.3 Dawson Piker Red

(6) Ground Command:

- (a) Bn Comm Saxon Reader FM 32.7.

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(b) LZ BLUE: Co A Warped Cause FM 46.80.
Co B Used Rates FM 33.60.

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(c) LZ RED: Co C Tasty Chime FM 36.70.

(7) FAC: Standby only UHF 301.5, FM 37.5.

(8) Tube artillery:

(a) Location: CHURCH BQ948416 FM Scetchy Halt 9, 35.70.

(b) Cung Son FM Rash Speller 10, 27.80.

(9) Smoke

(a) PZ: Yellow

(b) LZ: Yellow

(c) Enemy fire: Red

(d) Friendly distress: 2 Yellow

(e) Friendly: Green

Acknowledge

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Annexes:

A-Opns Only - (Map follows Incl 2)
B-Air Loading Plan
C-Air Movement Plan
D-Deception Plan
E-Sequential Opn Ord

Distribution:

A plus 1-1/101st Inf Div (Abn)
1-2/327 Inf (Abn)

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ANNEX B (Air Loading Plan) to OPORD 25-66.

PHASE II

<u>UNIT</u>	<u>LIFTED UNIT</u>	<u>SORTIES</u>	<u>ACL</u>	<u>TRPS</u>	<u>PZ</u>	<u>LZ</u>
48th	Plat C 2/327	7	6	42	BEACH	RED
129th	Plat A 2/327	7	6	42	BEACH	BLUE

PHASE III
1st Lift

<u>UNIT</u>	<u>LIFTED UNIT</u>	<u>SORTIES</u>	<u>ACL</u>	<u>TRPS</u>	<u>PZ</u>	<u>LZ</u>
48th	C (-) 2/327	12	6	72	BEACH	RED
129th	C (-) 2/327	12	6	72	BEACH	RED

PHASE III
2d Lift

<u>UNIT</u>	<u>LIFTED UNIT</u>	<u>SORTIES</u>	<u>ACL</u>	<u>TRPS</u>	<u>PZ</u>	<u>LZ</u>
48th	B 2/327	12	7	84	BEACH	BLUE
129th	B 2/327	12	7	84	BEACH	BLUE
179th	A (-) 2/327	33	4	132	BEACH	BLUE

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ANNEX C (Air Movement Plan) to OPORD 25-66

Time Table

PHASE I

a. Crank	2025
b. T/O	2030
c. Land PZ BEACH	2034
d. T/O PZ	2037
e. Land LZ MOONBEAM	2100 (A)

Land 12 ships in trail in PZ, land NE 030°, Alpha on the right, Bravo on the left. 2 flights of 12, "V"s of three in trail 1 minute between flights of 6. 1 minute between Alpha and Bravo flights. Flight leaders maintain correct time spacing. Charlie flight follow Bravo flight by 1 minute.

PHASE II

a. Crank	1802
b. T/O	1807
c. Land PZ BEACH	1811
d. T/O PZ	1815
e. Land LZ RED & BLUE	1835 (A)

Land 7 ships in trail in PZ, land NE 030° Alpha on the right, Bravo on the left. 2 flights of 7, "V"s of three in trail. 1 minute between flights of 7.

PHASE III

a. Crank	2150
b. T/O	2155
c. Land PZ BEACH	2200
d. T/O PZ	2210
e. Land LZ RED	2230
f. T/O LZ	2234
g. Land PZ BEACH(2)	2326
h. T/O PZ	2310
i. Land LZ BLUE	2328

Land 12 UH-1D's in trail in PZ, land NE 030°, Alpha on the right, Bravo on the left. Charlie flights land NW of PZ (4 CH47's) 2 flights of 12 and 1 flight of 4 CH47's. Order of flights A, B, and C. V's of three in trail for flights A and B. 1 minute between flights. 5 minutes between flights Bravo and Charlie. Charlie flight fly in trail flights of 2.

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ANNEX D (Deception Plan) to OPORD 25-66

References: OPORD 24-66

1. SITUATION

- a. Enemy forces: OPORD 25-66
- b. Friendly Forces: OPORD 25-66
- c. Attachments & Detachments: OPORD 25-66

2. MISSION

10th Combat Aviation Battalion conducts deceptive measures to deceive the enemy as to the increased activity in vic Cung Son (Coord. BQ808422) and to deceive the enemy as to the correct time and location of the heli-lift of the 2/327 Abn Bn, 1st Bde, 101st Abn Div.

3. EXECUTION

a. Concept of the Operation: 10th Combat Aviation Bn conducts deceptive measures as follows:

- (1) Limited helicopter operations in AO prior to beginning of operation.
- (2) Deceptive operation 302100 Oct 66 North of Cung Son vic coord BQ788483 (LZ MOONBEAM)
 - (a) Air strike of LZ MOONBEAM
 - (b) Arty prep of LZ MOONBEAM
 - (c) Gunship prep of LZ MOONBEAM
 - (d) Simulated combat assault utilizing 24 UH1D's and 6 UH1B's into LZ.
- (3) Illumination of area Northeast of AO.
- (4) Conducts flights over area North & Northeast of AO.
- (5) Low level flying and feint landings prior to inserting pathfinders.

b. 10th Combat Aviation Battalion conducts non-illuminated night combat assault into LZ's RED (Coord BQ810337) & BLUE (BQ919337).

4. ADMINISTRATION AND LOGISTICS

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5. COMMAND AND SIGNAL

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ANNEX E (Sequential Operation Order) to OPORD 25-66

ITEM	TIME	ACTION	OTHER INFORMATION
1.	31 Oct 66 2150-2328	10th Avn Bn conducts a night non-illuminated combat assault helilifting 2/327 Inf into LZ RED and then LZ BLUE	(1) Flt (A) 48th Avn Co 12 UH1D's Flt (B) 129th Avn Co 12 UH1D's Flt (C) 179th Avn Co 4 CH47A's.
2.	2150	Flt's ALPHA, BRAVO, CHARLIE crank at Vagabond Valley	(2) Alpha and Bravo flights place Green chalks 1-4, White chalks 5-8, and Yellow chalks 9-12.
3.	2155	Flt Alpha will commence lift off at Vagabond Valley and proceed to PZ BEACH. Followed by BRAVO flight then CHARLIE.	(3) Flight B will follow Flight A and Flight C will follow Flight B.
4.	2200-2210	All flts will land & load at PZ BEACH. Flights ALPHA and BRAVO will load C (-) 2/327 Inf aircraft cargo load (ACL) of 6 troops.	(4) Flts A and B will land 12 UH1D's in trail ALPHA on the right BRAVO on the left. Flt CHARLIE (4 CH47's) will land 200 meters to the Northwest of Flts A and B. Pathfinders will direct and continue landing on FM 40.6 call sign Dawson Piker 26. CH-47's will shut down in PZ
5.	2210	Flt ALPHA will depart PZ BEACH. Flt BRAVO will follow flt ALPHA by 1 minute	(5) Flt formation will be V's of three in trail. Flt path depicted on overlay Flt alt 1500' outbound to LZ's
6.	2230	Flt ALPHA will land LZ RED followed by Flt BRAVO.	(6) Pathfinders will be established in LZ RED. Land to lighted trees etc Dawson Piker RED FM 45.3. Last A/C in BRAVO Flt will pick up Pathfinders

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ITEM TIME

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OTHER INFORMATION

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7. 2234 Flt ALPHA & BRAVO clear LZ RED return to PZ BEACH. (7) Other Flt path depicted on overlay. Return alt 2000' from LZ to PZ.
8. 2300-2310 Flt ALPHA will land at PZ BEACH followed by Flt BRAVO. Flts ALPHA and BRAVO will land B2/327 Inf. ACL of 7 troops. Flt CHARLIE will load A (-) 2/327 Inf ACL of 32 troops. Flts ALPHA and BRAVO will land in PZ BEACH 12 UHLD's in trail. ALPHA on the right BRAVO on the left. Pathfinders will direct and control landing on FM 40.6. Dawson Piker 26. Flt CHARLIE (4 CH47A's) will start a P/U and go to flight.
9. 2310 Flt ALPHA will depart PZ BEACH followed 1 minute later by Flt BRAVO, Flt CHARLIE will follow Flt BRAVO by 5 minutes. (9) Flt formation for ALPHA and BRAVO flts will be V's of three in trail. Flt CHARLIE will be 2 Flts of 2 separated by two minutes in trail. Flight path depicted on overlay. Enroute alt 1500'.
10. 2328 Flt ALPHA will land at LZ BLUE followed by Flt BRAVO and then Flt CHARLIE. Pathfinders will be established in LZ BLUE. Land to lighted trees etc. Dawson Piker BLUE FM 45.3. Last 2 A/C in Flt CHARLIE will pick up Pathfinders, all Flts will return on flight path at 2000' 1st 8 A/C from Flt ALPHA will go to miniports other A/C land in PZ BEACH and refuel as directed by Vagabond control FM 39.5
11. Freq & Call Signs
Bn Comd FM 45.3 UHF 237.7
Alt Comd FM 40.6
Gunship with Comd FM 45.3 Alt UHF 237.7
Dustoff w/comd UHF 237.7, Alt 45.3
Pathfinders PZ Dawson Piker 26 FM 40.6; LZ RED Dawson Piker RED FM 45.3

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6 f Pathfinders LZ BLUE Dawson Piker Blue FM 45.3

Inf Bn Comd Saxon Reader FM 32.70

Co A Warped Cause FM 46.80 (LZ RED)

Co B Used Rates FM 33.60 (LZ BLUE)

Co C Tasty Chimes FM 36.70 (LZ BLUE)

FAC standby only UHF 301.5 FM 37.5

Tube Artillery Sketchy Halt 9 FM 35.70 @ CUNG SON Rash Speller 10 FM 37.80.

Smoke

- | | |
|------------------------|----------|
| (a) FZ: | Yellow |
| (b) LZ: | Yellow |
| (c) Enemy Fire: | Red |
| (d) Friendly Distress: | 2 Yellow |
| (e) Friendly: | Green |

Acknowledge.

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DEPARTMENT OF THE ARMY
HEADQUARTERS 10TH COMBAT AVIATION BATTALION
APO 96312

9 November 1966

SUPPORT OF LONG RANGE RECONNAISSANCE PATROLS

During the past several months the 10th Combat Aviation Battalion has been supporting the helicopter mission requirements of long range reconnaissance patrols (LRRP) activities in the Republic of Vietnam. In support of operations of this type, special techniques, procedures, and equipment have been tested and found effective.

Although the techniques and procedures described in this report have been effective and will continue to be used, new ideas and techniques will be developed and tested. The enemy can and will exploit those units that are unable to change or modify their tactics. Units that are unwilling to vary their procedures and try new methods will become stagnate and fail. Hence it is noted that no one system is the final answer but these are proven procedures that can be modified to fit many mission requirements.

LONG RANGE RECONNAISSANCE PATROL

There are numerous schools of thought on the best composition of a long range reconnaissance patrol. The number of personnel suggested vary from a three man group to units the size of a platoon. Regardless of their size, these units are designed to perform reconnaissance and/or surveillance and normally avoid enemy contact.

A type LRRP organization composed of six men is the basis used for this report. This is the size of Special Forces LRRP teams presently employed in joint operations.

The field equipment carried by the patrol is simple, lightweight, functional and permits the patrol to remain in an area at least five days at a time. The patrol has an (AM) radio set and a (FM) radio set as well as visual signalling devices (panels, mirrors and flares). Weapons carried are usually lightweight, auto-matic rifles (M-16, Carbine M-2) and grenades (pyrotechnic and anti-personnel type). The teams are highly trained, in excellent physical condition and extremely well motivated in their mission of intelligence gathering. In addition, their training enables them to bring fire on the enemy from supporting artillery, Air Force fighter bombers, armed helicopters and Naval gun fire. US Army members of these LRRPs have an average of eight years in the service and are experts at this special type mission.

Logistical support to the patrols once committed is minimal and normally consists only of transportation (helicopter) and emergency medical evacuation and treatment.

Immediate fire support is preplanned giving the patrols the capability of directing fire against enemy elements whenever a lucrative target is located or the team is in danger. Fire support can be given from the following

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sources depending on range to target, time of request, priority of target, and the other factors that are always present in any fire request:

a. Air Force Fighter Bomber Strikes: A FAC is assigned to all of the LRRP missions and is always on call. Friendly air strikes are directed by this FAC when priorities permit the mission.

b. Armed Helicopter Assistance: Three (3) armed helicopters are present on the LRRP mission and are directed by the FAC or the command and control helicopter.

c. Artillery Fire and Naval Gunfire: If range permits, the LRRP will serve as forward observer and adjust these fires.

In addition to the fires of these agencies, a reaction force of a rifle company to brigade size units may be airlifted into the area to exploit the enemy forces located by the LRRP's. Experience has proven that reinforcing of a team under attack is more effective than extraction when a suitable landing area is available.

Helicopter support to a LRRP team is nine (9) aircraft (3 UH-1B armed helicopters and 6 UH-1D's) with crews; operation and control element; and sufficient maintenance personnel to perform up to third echelon maintenance support. The six (6) UH-1Ds provide a capability of infiltrating three six man teams at one time with sufficient back-up to recover personnel in the event an aircraft is forced down.

The flight element consist of a Task Force of the following:

- One (1) UH-1D Command and Control Ship
- Three (3) UH-1D Team Transport Aircraft
- Two (2) UH-1D Recovery Aircraft
- Three (3) UH-1B Armed Escort

This organization may be reduced by one (1) recovery aircraft if the command and control aircraft can provide emergency recovery. This means only limited personnel can be carried in the command and control aircraft.

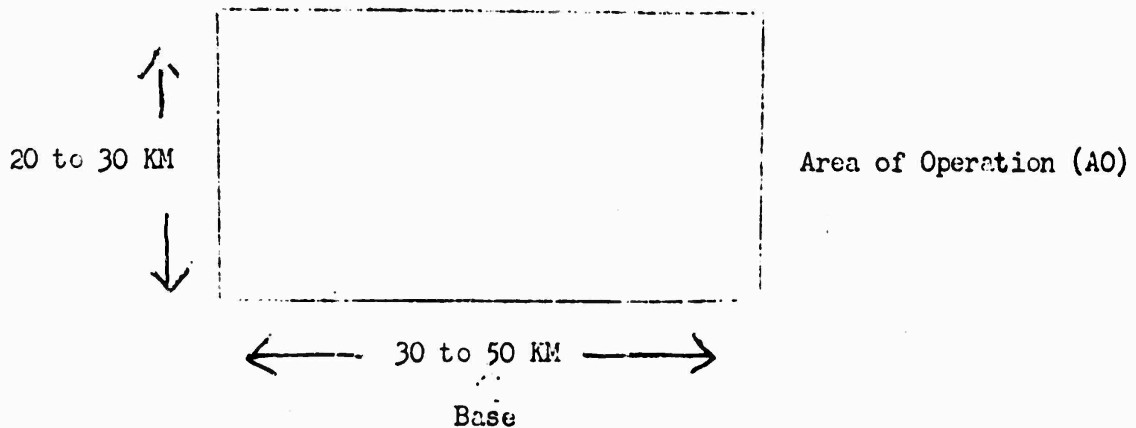
One UH-1B armed helicopter may be deleted if necessary; however, a three gunship team has been found to be far more effective in suppressing fire on the ground. In addition, the distance of the LRRP base is usually too far to replace aircraft in less than two hours, so it is felt that it is necessary to have three UH-1B's in the forward area.

RECONNAISSANCE

A general reconnaissance of the area by all aircraft and crews is conducted as soon as the unit moves to the area of interest. This area of operations can be of varying size but usually is about thirty to fifty kilometers square.

65 Flight altitude of the flight is conducted at 1500 to 2000 feet absolute and only a general look at the overall area is accomplished.

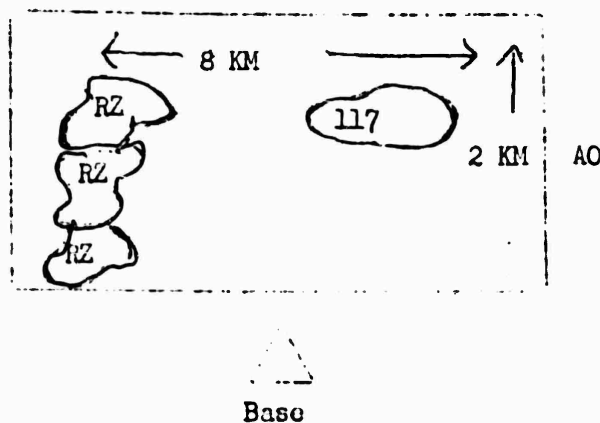
Fig #1



Formations will vary depending on flight routes and other considerations such as weather, terrain, special areas of interest etc.

The LRRP commander makes his plan for individual patrols and assigns RZs (reconnaissance zones) to the individual patrols.

Fig #2



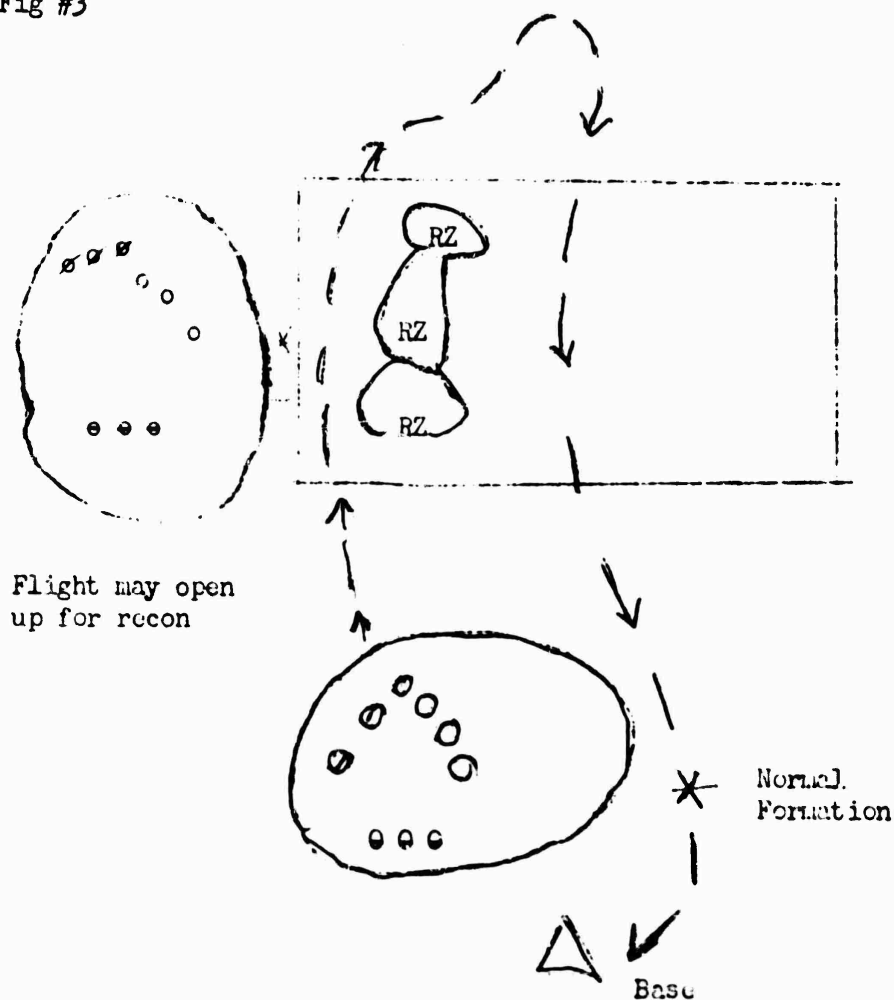
These recon zones are normally five to eight kilometers in length and vary in width from two to five kilometers depending on terrain. Within these recon zones certain points of critical interest are plotted and the LRRP teams receive their EEI's and areas of special interest for planning their routes through the RZ.

On order of the LRRP base commander a reconnaissance is conducted. Three members of the team fly in the aircraft with the aviators who will infiltrate them into their Recon Zone (RZ).

Normally there are three teams with adjoining RZs making the aerial reconnaissance at the same time. The aircraft over fly the area at altitudes from 1500 to 2000 feet absolute. This type of reconnaissance permits the teams and the pilots to select areas for infiltration but does not provide them determination of hidden obstacles on the ground. This risk is accepted since it is not necessary for the aircraft to have a large LZ and the personnel may jump to the ground from a low hover, descend by ropes (rappelling) or climb down rope ladders.

The team leaders select a primary LZ and one or more alternates. Flight routes are flown to permit all members sufficient time to plot their LZs but in such a way that it appears an over flight rather than a reconnaissance. Formations vary depending on routes selected and other control factors. Formations are opened up to permit the aviators to observe their area without endangering the formation.

Fig #3



Upon completion of the reconnaissance, aviators and LRRP teams meet for further planning prior to the infiltrations. Infiltrations may be made

without prior reconnaissance if necessary due to enemy activities.

77 The recovery aircraft and armed helicopters are needed on the reconnaissance due to the distance and time of reaction in the event one of the aircraft is forced down.

SELECTION OF INFILTRATION LANDING ZONES

The selection of an infiltration LZ for a LRRP team will require practice and training on the part of both pilots and LRRP team members. "Rules of Thumb" may be given but any area that permits entry of the helicopter to a spot near enough to the ground to drop off troops will suffice. Areas in heavily canopied jungle with few clearings will require extensive search since the enemy will certainly cover those clearings that lend themselves to helicopter operations. Reconnaissance at 1500 to 2000 feet is difficult until practiced and personnel will probably overlook many suitable areas at first. Personnel must be familiar with the vegetation of the areas so they do not select LZs in bamboo thickets which look like clearings from the air but are actually as much as twenty feet tall. River banks are not very suitable since they usually provide excellent observation for the enemy and are well traveled routes in the jungle.

▲ Large clearings in heavily forested areas such as War Zone "C" and War Zone "D" are almost always under observation by the enemy. This does not mean they can not be used. If a large clearing is used, a small spot close to the tree line should be selected to allow the team the chance to reach the jungle before pursuit can start.

LZs may be located along stream lines and even in bomb craters. Although the aircraft can not touch down, the personnel may leave the aircraft by any of the special means available, i.e., rappelling, jumping, hoists or rope ladders.

It is possible to place team members into the jungle canopy itself and allow them to climb down through the trees. This method is not really desirable due to the difficulty of extracting if the enemy is in the immediate area.

Selection of LZs will be a personal problem to each pilot and LRRP leader. Only training and actual operations will increase the capability of these personnel to make good selections.

INFILTRATION

The date and time of infiltration of the teams is directed by the LRRP commander. Teams are infiltrated at last light. Last light is normally ten to twenty minutes after official sunset. Exact time depends on visibility, light, rain, overcast skies, and locations of the LZs; all effect visibility and each infiltration must be treated differently.

Aircrews attend LRRP team briefbacks during the afternoon of the infiltration and all instructions given the LRRP teams are known by the

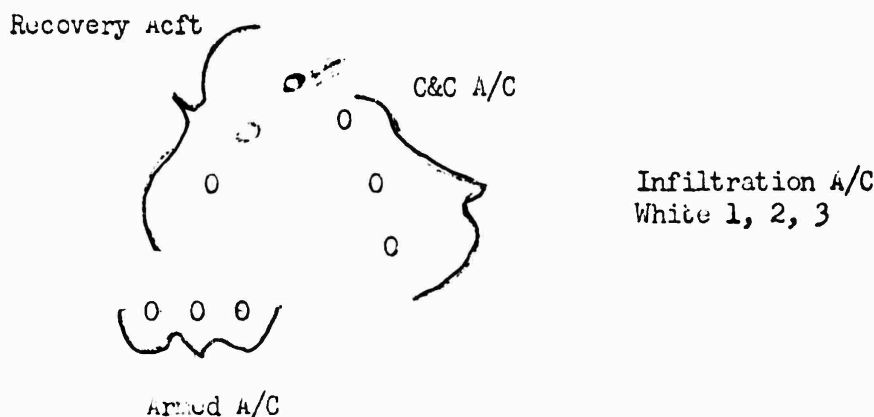
aircraft commanders. This briefback lets the pilots know what the team plansto do if it gets hit, where it will go, what routes it intends to take and all other special instructions needed to find them in the event of an emergency or loss of communications. The pilots in turn brief the crews on loading and unloading procedures, routes to the LZ, emergency aircraft procedures, and any other items necessary to insure a safe infiltration.

One hour prior to infiltration of the teams, the mission control commander presents the operations briefing. Aircraft assignments are made and the flight is briefed for the mission.

Thirty minutes prior to loading time the LRRP teams and their infiltration aircrews again get together for final coordination. At this time emergency procedures are repeated and last minute coordination affected.

Organization for infiltration is as follows:

Fig #4



Aircraft fly to the area in formation at altitudes 1500 to 2000 feet absolute along flight routes marked by easily identified check points. These check points permit the mission commander to place the flight at the release point at the proper time and permit him the flexibility of releasing early or late depending on light conditions. Check points also serve to keep the flight oriented and may be used as points of rendezvous or orbiting area upon completion of the infiltration.

The mission commander releases the aircraft over the preselected release point and proceeds on course with the remaining aircraft (two recovery aircraft and the armed helicopter). The aircraft infiltrating the teams proceed to their RZs and place the teams in the LZs, either primary or alternates. A report of successful infiltration is made on climb out to join the formation at a preselected orbiting point. When all aircraft have joined up, the flight proceeds back to base. If an aircraft is forced down in or short of the LZ, the call for help is made by radio and the command and control aircraft with the recovery and armed aircraft proceed

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immediately to the LZ. If personnel are uninjured the two recovery ships proceed into the area for the pick up, escorted and protected by the armed helicopters. Control and guidance is given by the mission commander overhead and the crew and team are extracted in the two aircraft.

If one of the infiltration aircraft fails to report successful infiltration within five minutes and there is no response to the call from the command and control ship, all aircraft move to the RZ and prepare for emergency extraction. If light conditions and/or terrain do not permit evacuation, the downed crew becomes a part of the LRRP team and practice Escape and Evasion with the team until evacuation is accomplished.

The vulnerability of infiltration of teams is not as hazardous as it sounds. The aircraft use small LZs, do not have to touch down all the time, spend a minimum amount of time near the ground, and have failing light to help cover the approach to the LZ. Enemy soldiers on the ground in the vicinity of the LZ are not usually alerted to the aircraft since the low level approach is conducted during the final phase. Jungle which affords concealment to the enemy also masks his fires except in the clearings themselves. Time of exposure to enemy fire in the LZ is measured in less than thirty seconds unless the team has to rappel into the LZ or use rope ladders. Hazards to successful completion of a mission of this type usually come from the terrain itself. Small trees, bushes, and vines can damage the tail rotor of the aircraft and make it uncontrollable. Pilots assigned infiltration missions must be proficient and should be selected from experienced crews.

THE INFILTRATION

The crew and team members accomplishing a "last light" infiltration mission are lonely people. Descending into failing light toward a heavily canopied jungle with an unknown number of enemy troops waiting, twenty to thirty miles deep in enemy territory can make anyone apprehensive and doubtful.

The release from the major portion of the flight is at an altitude of 1500 to 2000 feet absolute and the aircraft descend in varying patterns to mislead any observant Viet Cong on the nature of its mission. Failing light hides the aircraft and its silhouette disappears to the ground observer as it blends into background hills or jungle canopy.

The final 3/4 to 1/2 mile is at tree-top level. Speeds on this pattern of flight vary from 80 to 60 knots with a final flare near the clearing or LZ.

The final part of the infiltration may be a vertical or a flat approach depending on the LZ, but either must be accomplished with care and deliberation. Pilots must take their time to insure that nothing damages the tail rotor, that the aircraft blades will not strike trees or the slopes of the hills, and that the team does not have to leap 15 feet to the ground. The crew must watch for the pilot and warn him of any obstacles since all of

his attention is directed in keeping the aircraft steady.

When all team members are out, a gunner or crew chief informs the pilot. Swiftly but cautiously the aircraft leaves the LZ. The aircraft proceeds along the tree tops until a speed of 70 to 80 knots is reached and then a quick climb to altitude is accomplished. On climb out a report is made to the mission commander and the aircraft then joins the flight. 70

Example #1

In April 1966 in the I Corps Tactical Zone an aircraft infiltrating a LRRP team into a mountainous area off loaded its team less than 100 meters from a group of fifty enemy soldiers. The team managed to hide during the night and evaded the enemy until first light the following morning when a successful extraction was completed. Jungle to the side of clearing was extremely dense and the team was able to take cover and evade the enemy by reaching this cover in a matter of seconds.

Example #2

In September 1966 in the III Corps Tactical Zone area a team was infiltrated into a LZ containing an estimated enemy platoon in camouflaged bunkers. The team managed to reach the jungle's edge and successfully evaded the pursuers who observed the infiltration at a distance of less than 100 meters.

Example #3

In March 1966 three teams were being infiltrated in the mountainous area of the I Corps Tactical Zone. The infiltration aircraft were released just prior to last light and proceeded toward their respective LZs. While on short final to the LZ one of the aircraft received automatic weapons fire which struck the engine causing an engine failure. The pilot autorotated into a slope on the side of the hill and all crew members evacuated the aircraft along with the LRRP team. The pilot radioed for help when hit and turned on the anti-collision light when on the ground.

The command and control aircraft with recovery ships and armed helicopters reached the area in less than five minutes, located the downed aircraft and evacuated the crew and team members in two aircraft. The aircraft was later destroyed by enemy elements in the area but there were no casualties due to enemy fire. Terrain did not permit the enemy in the area to reach the aircraft with sufficient force in time to effect the evacuation although a division CP was suspected in the area.

EXFILTRATION

Exfiltration of the LRRP team is accomplished on schedule or due to emergencies. It can be accomplished at any time during the day light hours if weather permits. A night extraction is possible under certain conditions. The command for exfiltration is given to the aviation mission commander and

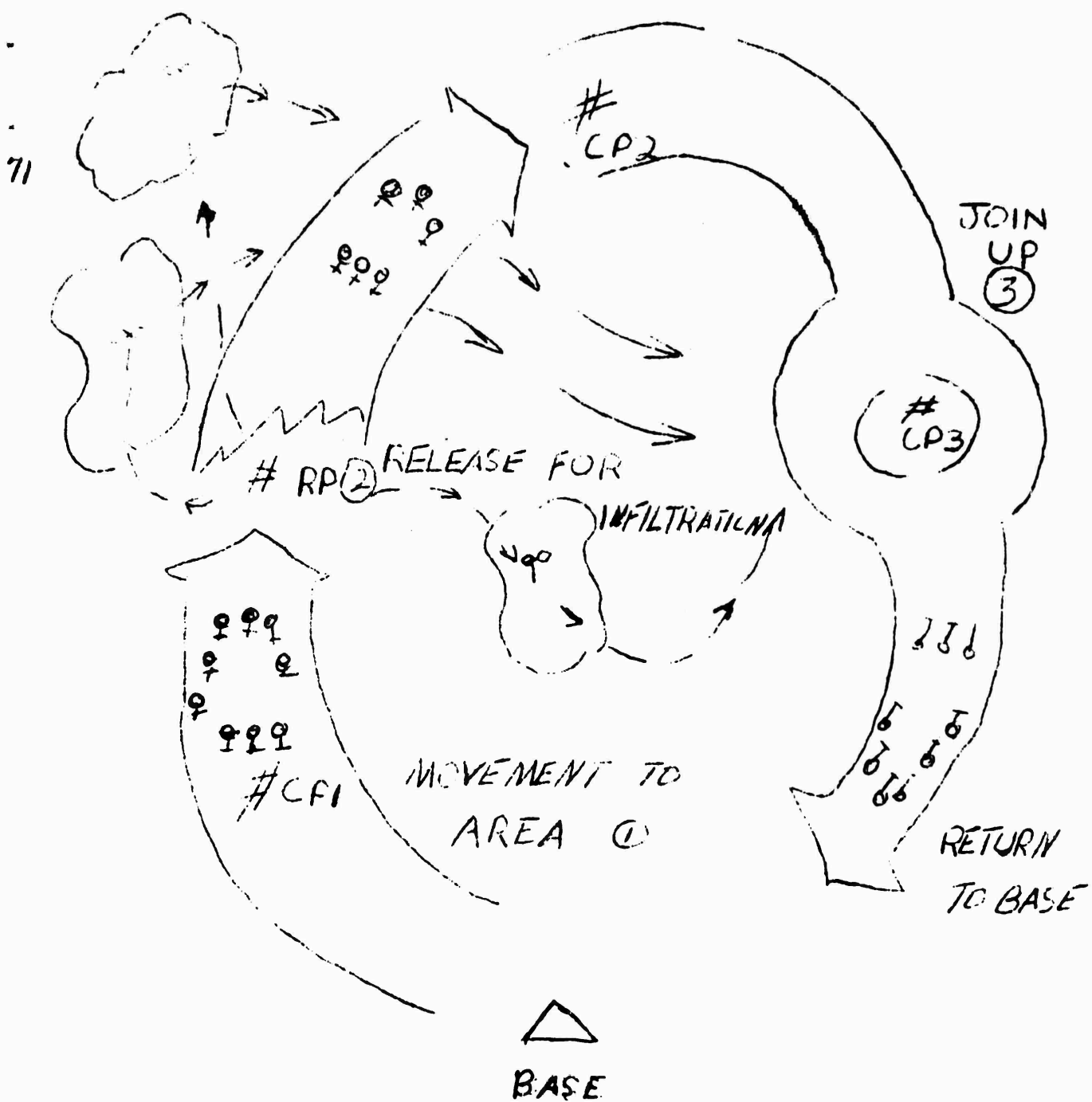


FIG 5A
NORMAL INFILTRATION

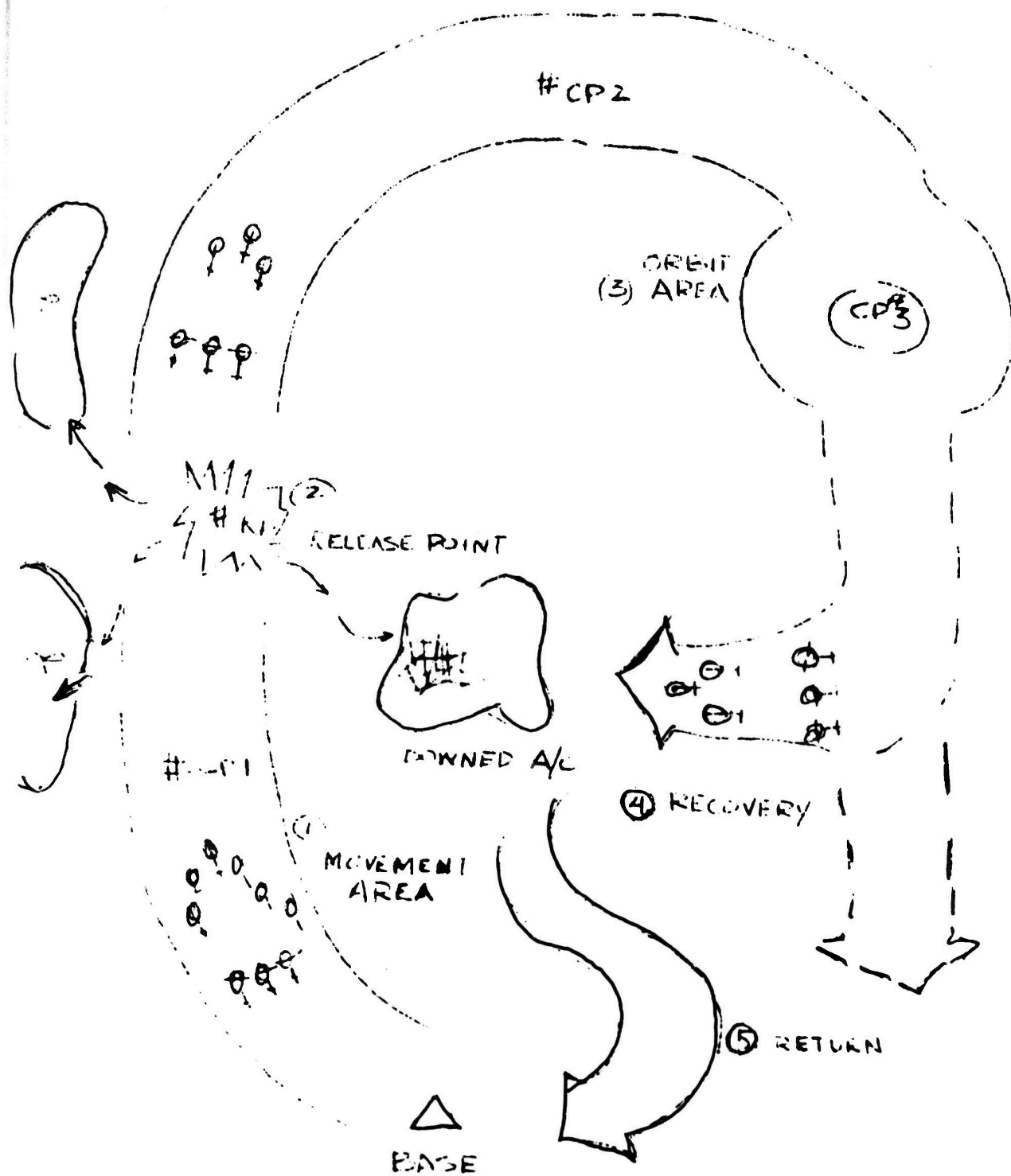


FIG. 5 B.

DOWNED A/C DURING INFILTRATION

once the extraction is agreed on, the aviation element directs the operation.

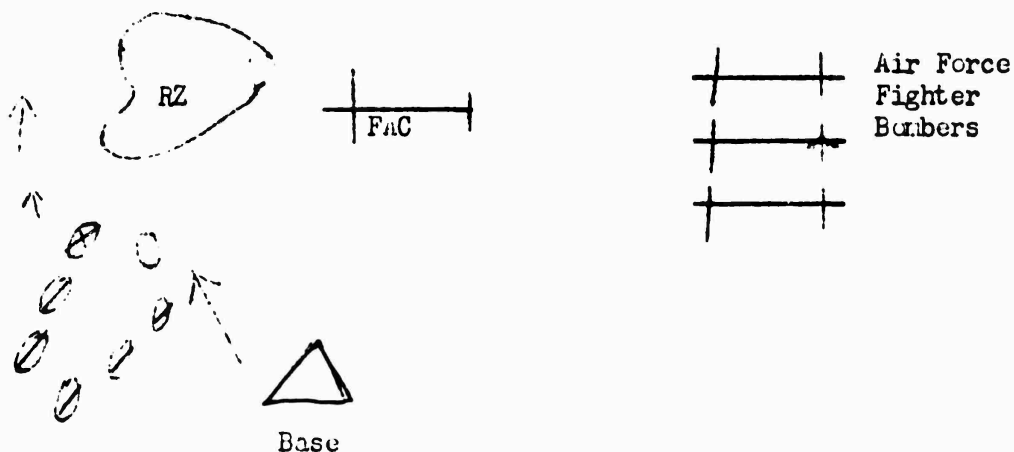
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Normally the LRRP team radios its location to the base and the FAC will proceed to the team to keep it under surveillance and provide control of Air Force fighter bombers if needed and available. If extraction of the team is desired, the Army Aviation elements form as follows:

- 1 UH-1D Command and Control Ship
- 2 UH-1D Recovery Ships
- 1 UH-1D Pick up Ship
- 3 UH-1B Gun Ships

The pick up ship will land and take aboard all of the team members. If the team has become split or the pick up ship can not land due to terrain, two pick up aircraft will be designated and they will carry special equipment as required.

Fig #6



The aviation mission commander conducts a short briefing and on command the extraction force proceeds directly to the area. Communication between the helicopter and FAC are maintained at all times and if air strikes are in progress the extraction force remains well clear of the area.

If enemy elements have pressed the team too closely to permit the fighter bombers safe margin for conducting a strike, the gunships are turned over to the FAC for employment while being monitored by the command and control aircraft. Radio contact with the team on the ground keeps the mission commander informed of the situation. When conditions permit the mission commander directs the recovery aircraft to orbit outside the immediate area and proceeds over the LRRP team's area accompanied by the pick up aircraft. The team may be identified by the FAC diving at them, spotting their "day glow" panels, spotting their signaling mirror, or if necessary having the team throw smoke.

When the pick up aircraft sights the team's location the mission commander directs the armed helicopters to position themselves to protect the extraction aircraft during the pick up. If enemy fire is present there may

be delays while the armed helicopters attempt to neutralize it. If complete neutralization cannot be made, the armed helicopters will keep a steady fire on the enemy element while the pick up aircraft proceeds in to extract the team. When the team has been extracted all elements form on the pick up aircraft in the original formation and proceed back to base. If two pick up aircraft are involved, the mission commander directs the timing of both pick-ups and continues to keep the armed helicopters in the suppressive fire role.

If the pick up aircraft is downed during the pick-up, the crew becomes the focus of all rescue operations and the recovery aircraft must be utilized.

The following actions are sequences of events for an extraction:

EXAMPLE #1

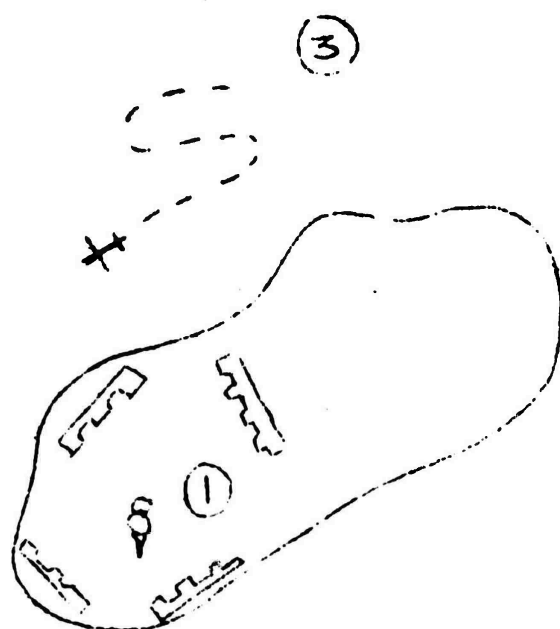
During April 1966, in I Corps area in mountainous terrain, a LRRP team requested immediate extraction because they had captured two prisoners. The extraction force proceeded directly to the area and were assisted by the FAC in locating the team. The team had become split during the capture of the two prisoners and both elements were under fire by the enemy. Gunships suppressed fire in the area around the three team members with the two prisoners and a successful extraction of these personnel was made near a road. The other members of the team had been forced to move into heavily forested jungle to escape their pursuers and could not be extracted without special equipment. A marine helicopter with a hoist was accompanying the extraction force and under the protection of the armed helicopters, successfully completed the evacuation from the area. There was no fire on the second extraction.

EXAMPLE #2

In May 1966, in the III Corps Tactical Zone in an area of cleared terrain, a LRRP observed three companies of VC in the open and requested airstrikes on this element. Within twenty minutes fighter bombers were striking the enemy and it was felt that due to the confusion and scattering of the enemy by fighter bombers that the team should be extracted.

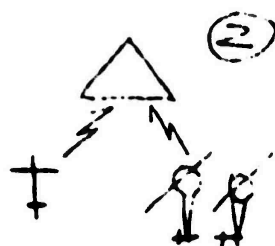
The extraction force proceeded to the area but remained outside the area of the air-strike while awaiting a chance to recover the team. Air strikes in the area were taking a heavy toll of the enemy in the open but the FAC continued to find enemy elements within 50 to 100 meters from where the team was concealed. At the end of a 20 to 30 minute period it was decided to try to extract the team since the enemy would be disorganized. The team was located by terrain features and the pick-up ship accompanied by armed helicopters dashed into the area to make the pick-up. A withering hail of automatic weapons roared out at the pick-up ship in its flare prior to touchdown and it and two gunships were hit at approximately the same time. The pilot of the pick-up ship flew the stricken aircraft out of the area and the armed helicopters returned to altitude. The Air Force aircraft attempted to annihilate the enemy taking care not to strike the team's location. Napalm, CBU, bombs, rockets, and cannon fire were distributed

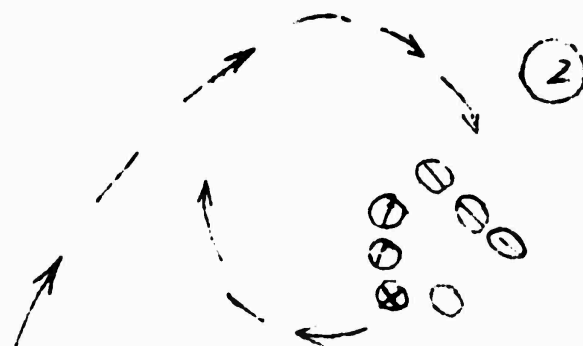
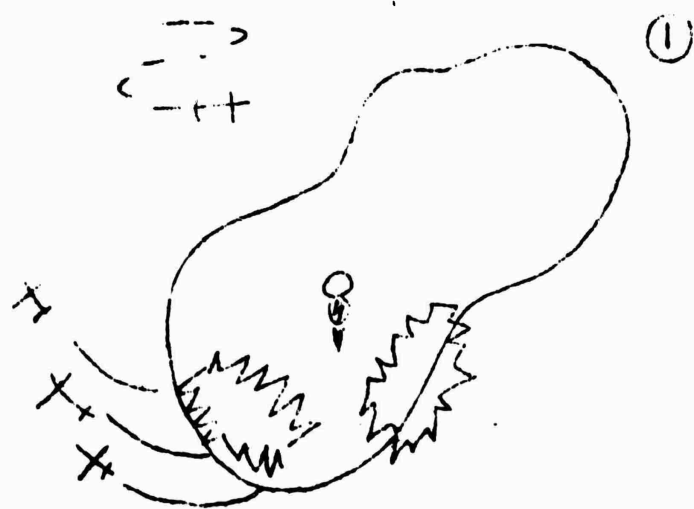
PHASE I



- ① TEAM FINDS ITSELF SURROUNDED BY ENEMY & REQUEST EXTRACTION
- ② BASE SENDS FAC TO TEAM & ALERTS ARMY AVN. ELEMENT
- ③ FAC REQUESTS FIGHTER BOMBER SUPPORT & PROCEEDS TO AREA
- ④ AF FIGHTERS PROCEED TO AREA

FIG 7A





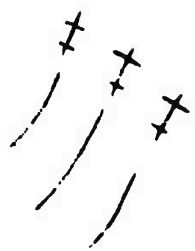
① FAC DIRECTS AIRSTRIKE
TO NEUTRALIZE ENEMY

② EXTRACTION FORCE
PROCEEDS TO THE AREA
ORBITS CLEAR OF AIRSTRIKE

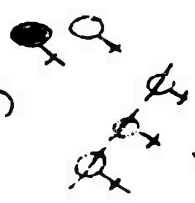
FIG 7B

BASE

FAC ASSISTS
IN LOCATION
OF TEAM



C4P AND PICKUP
ESCORTED BY GUNSHIPS (1)
PROCEED TO 12 AND
LOCATE TEAM FROM
GROUND



RECOVERY SHIP
ORBIT JUST OUT-
SIDE AREA

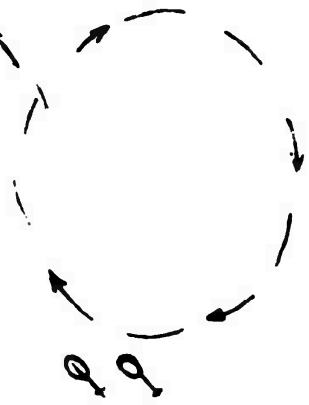


FIG 7C

△
BASE

FAC ASSISTS
AS REQUIRED



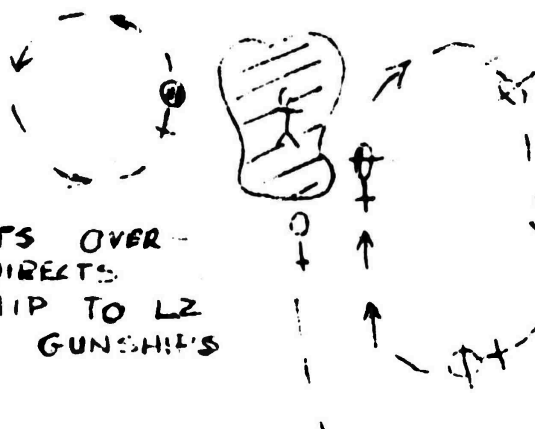
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AF FIGHTER
BOMBERS REMAIN
ON CALL

C&C ORBITS OVER-
HEAD AND DIRECTS
PICKUP SHIP TO LZ
& CONTROLS GUNSHIPS



GUNSHIPS COVER
PICKUP SHIP'S AP-
PROACH & SUPPRESS
ENEMY NEAR LZ

PICKUP SHIP
PROCEED TO LAND
AND RECOVER TEAM

RECOVERY SHIPS
ORBIT

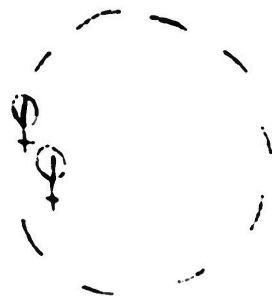


FIG 7D

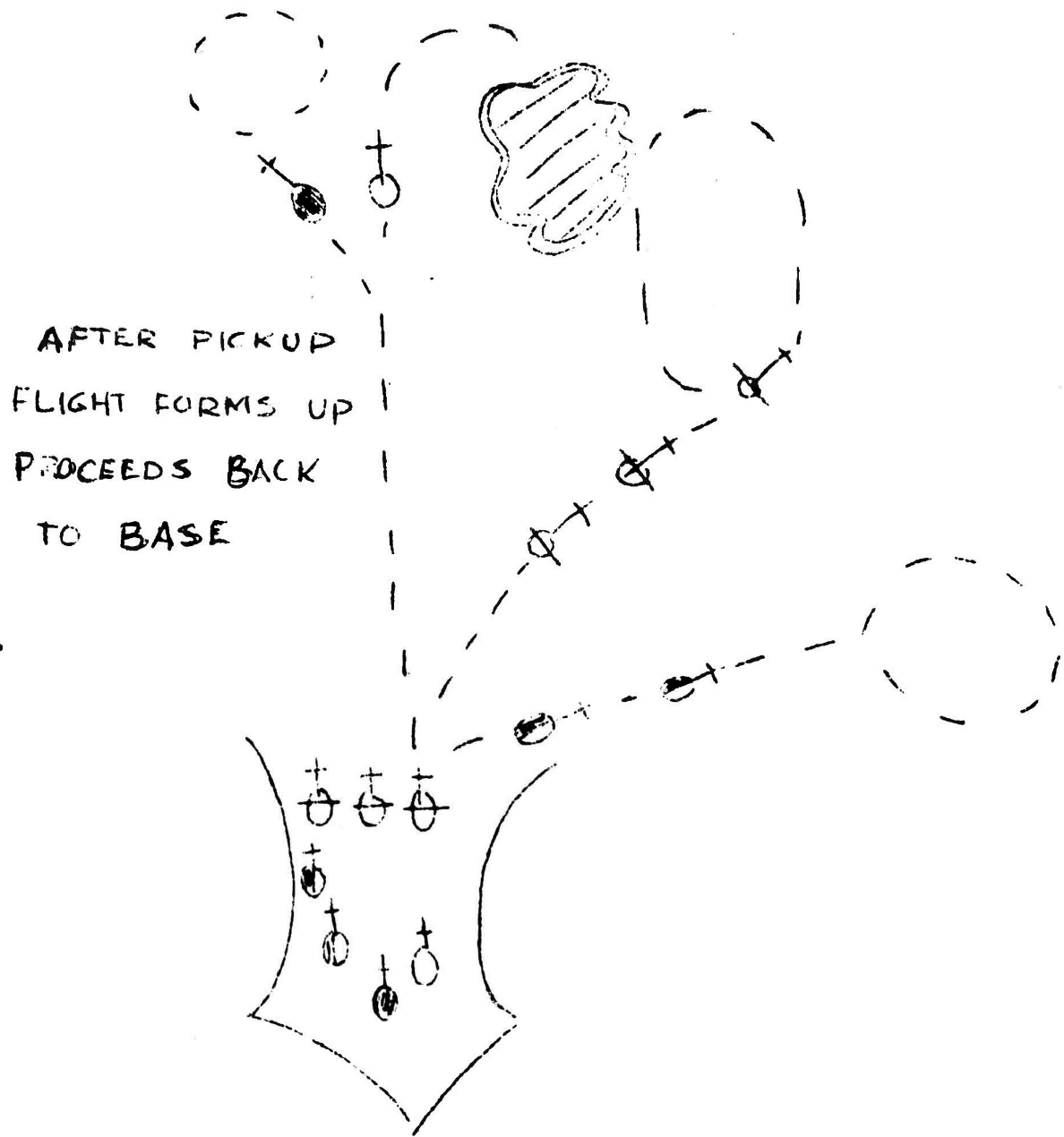


FIG 7E

△
BASE

through the area. After loitering in the area awaiting for the enemy to be neutralized, it was necessary to proceed back to the base area to re-fuel all aircraft. The flight returned after a 40 minute delay. The supporting airstrike enabled the team to break away from its hiding place near a road into the jungle and from this area they were directed toward a clearing. It was necessary to have the team throw smoke before it could be located. The pick-up was successful and all team members were extracted without wounds. Three aircraft received hits but all made it back to the base safely.

EXAMPLE #3

In August 1966, in the III Corps Tactical Zone in an area of heavily forested rolling hills, a LRRP team requested air assistance and extraction. The team had been infiltrated into the middle of a large enemy bivouac area and was surrounded and pinned down. The team had lain concealed all night within the LZ and had been assaulted by a line of skirmishers that had actually run over them that morning around 0400 hours. The team leader had been stepped on by the enemy without the enemy realizing it.

Ceilings in the area were below 400 feet and the mission commander held the slicks on the ground until it could be determined that the weather was adequate for the mission. Armed helicopters accompanied the C&C aircraft. The fighter bombers over head could not make airstrikes so the C&C directed the armed helicopters to take their targets from the FAC at the same time calling for the rest of the flight (slicks) to proceed to the area.

Radio contact with the team revealed that one member of the team was missing. Efforts to locate him by the team were fruitless but the FAC spotted him less than fifty meters away from the other team members. Fire was so intense that they were unable to join up with this man. The armed helicopters engaged the enemy in and around the team with rockets and machine guns suppressing the fire enough for the pick-up ship to come in and recover five members of the team. This aircraft took fire from several directions but was not hit.

A recovery aircraft with special equipment (McGuire Rig) was sent in but the fuel warning light came on at this time and it was directed to proceed back to base. The mission commander directed the second recovery aircraft with special equipment into the area for the pick-up of the lone team member and a successful extraction was accomplished.

At this time (1 + 30 minutes later) Air Force bombers were able to be used since the ceiling was higher. With the team removed, area fire was possible and 24 sorties were flown by fighter bombers. Enemy casualties were estimated at 135 KBA (Air Force estimated).

SPECIAL TECHNIQUES & EQUIPMENT FOR LRRP

Terrain conditions in Vietnam require that personnel have means of infiltrating and exfiltrating areas that will not permit touchdown by

61 helicopters. There are several techniques to accomplish this and the following have been used successfully for several months.

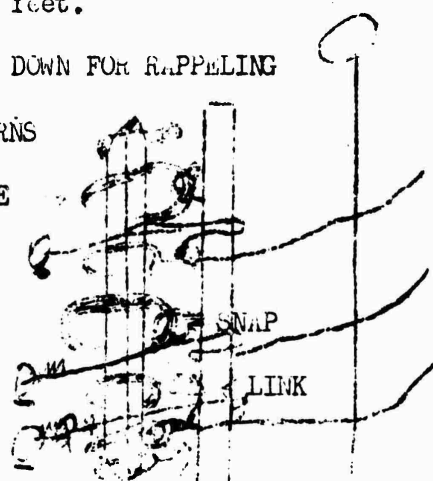
RAPPELING (INFILTRATION)

Rappeling from the helicopter is accomplished by personnel descending on ropes to the ground with the helicopter at a hover. Rappeling can be accomplished from almost any height above the ground but since the nylon climbing rope issued by the Army is in lengths of 120 feet the distance to the ground should be 20 to 80 feet.

TIE DOWN FOR RAPPELING

3 TURNS

ROPE



The "Swiss Seat Rappel" is normally used and it requires precision training. Untrained troops cannot use this method of **exit**.

Although it is possible to rappel all members of the team from the same helicopter, troops must be staggered in their exit so they do not collide with one another during the descent.

PILOT TECHNIQUES

The pilot should use trim control and be careful not to over control. He will have to make pressure corrections for the changes in weight shifts during the rappeling and should keep his position as stable as possible. An aid used to maintaining station is trees or terrain close by and attempt to stay stationary in relationship to them.

Since the aircraft is hovering out of ground effect, density altitude will be critical and the shifting, jerking movements of the descending troops will require delicate handling on the part of the pilot.

This method of infiltration can be accomplished safely when LZ's are secured or free from observation of the enemy. It is a satisfactory method of entry where the jungle cover masks the entry; however, the long exposure time is hazardous and it should be employed with care.

ROPE LADDERS:

These ladders are fabricated from nylon rope and metal tubes, and are

normally 50 to 60 feet in length and can be rolled into a bundle about one foot wide and 14 to 18 inches thick. They are rapidly employed and can be used on either side of the aircraft or both sides at once.

If the aircraft is hovering out of ground effect only one rope ladder should be employed at a time since the weight of the six (6) personnel is excessive and can cause loss of control and settling. In ground effect (15 to 20 feet) the aircraft will normally perform well with personnel boarding from both sides. No more than three men should ever be on one ladder because cyclic control will be lost. It takes a man in extra-fine physical condition to climb 40 feet of rope ladder as most of the weight is on his arms. The ladder moves out in front of him and it is exhausting work. Pilots must be exceptionally careful in their control movements when personnel are ascending or descending rope ladders since movements of the aircraft make the task harder. It is possible to fly out with personnel on the ladders in the event of enemy fire. This technique has been used but it is dangerous to the personnel since the rope ladder is subject to higher weight loading than it is designed for and the instability due to twisting and turning caused by forward speed of the helicopter may dislodge the men on the ladder.

If this is necessary, the team (3 men) fasten themselves to the rungs of the ladder with a snap link connecting the ladder and their web equipment. This provides some protection from falling off the ladder but it is minimum. If the aircraft must lift out with personnel on the ladder, it must be done slowly and vertically to insure the ladder does not catch in trees. The pilot then flies at speeds below 50 knots and lands as soon as possible to transfer the people from the ropes into the helicopter.

The disadvantage of the rope ladder make it a poor substitute for other methods.

McGUIRE RIG (ROPES AND SLINGS)

The McGuire Rig is a device invented by Master Sergeant McGuire, a former member of LRRP teams. This device is climbing rope with a canvas sling and a trapeze wrist lock for lifting personnel out of heavy jungle by helicopter. Normally three rigs compose one set and three people are lifted at one time.

This device has been used numerous times in safely extracting personnel and there has never been an accident.

FIGURE 9

Personnel on the ground to be extracted do not require any equipment but must be previously trained in the use of the McGuire Rig. It is not complicated but does require familiarity with its use.

The pilot hovers over the personnel to be extracted and drops the device. The men on the ground place themselves in the sling and place their left

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hand or wrist in the wrist band on the upper left side of the sling. All entwine their arms together and then hold the slack of the sling up until the pilot takes out the slack in the rope and lifts them off the ground.

The pilot maintains a speed not to exceed 50 knots but may fly for long distances without worrying about the personnel on the rig. The ride is not uncomfortable or tiring, wind resistance is not bothersome to men riding. After forward speed is attained there is very little turning or twisting. Flights of twenty minutes duration have been accomplished with this device. A well trained group on the ground can be extracted in less than two minutes and there are no control problems since the weight is uniform and only felt when the initial lift is made.

It is necessary to carry a man in the helicopter to throw out the rig and tell the pilot when to lift, descend, move forward or backward; however, a crew chief or gunner can perform these duties.

HOISTS

Recently the UH-1D has been authorized a "Hoist" that can be quickly installed in the cargo compartment to give the UH-1D a similar capability as rescue helicopters. This hoist has the following characteristics:

- 600 pounds capacity
- 100 feet per minute
- 120 feet length
- Installed in minutes

This hoist will permit individual extraction and infiltration of personnel and be of great value. There are numerous times when the terrain is too close to use the McGuire Rig and for the recovery of wounded personnel it would be priceless.

Tactics for the use of this device would be the same as for recovery with the other equipment mentioned and it would add to the flexibility of the aircraft supporting Long Range Reconnaissance Patrol Teams.

GENERAL

The devices and techniques mentioned have all been employed safely and pilots in the battalion have had no difficulty in learning to use them. They are not fail-safe; however, and they would be extremely dangerous in the event of a forced landing. At present there is no method known where the personnel under the helicopter could be saved if the aircraft was forced down with complete engine failure.

The pilots are instructed to attempt to make a hovering autorotation to the side to avoid coming down on the team but the only means of possibly saving personnel riding below the helicopter in an auto-rotation would be a flare at 100 to 150 feet, cutting them loose and then auto rotating further with the remaining RPM. No one has done this and it can not be practiced.

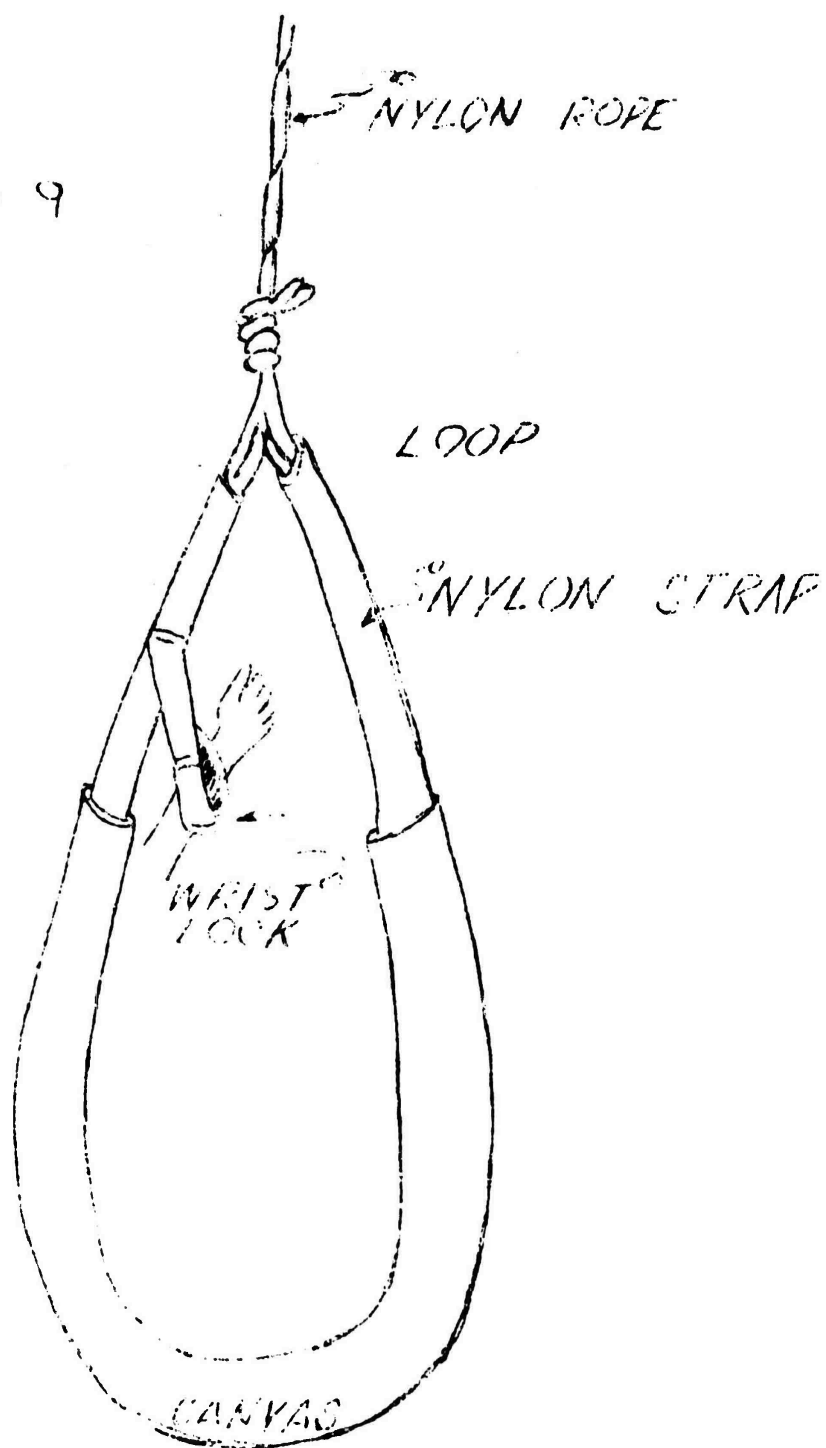
Although extractions by Rope Ladder, McGuire Rig, and Hoist have been made under enemy fire, it is a critical situation because of the high exposure time. Rope ladders require men almost three minutes to climb twenty feet; McGuire Rig extraction normally takes up to two minutes from the time the aircraft comes to a hover until it lifts half of the team out; and the Hoist Operations may take as much as five minutes for a six man group.

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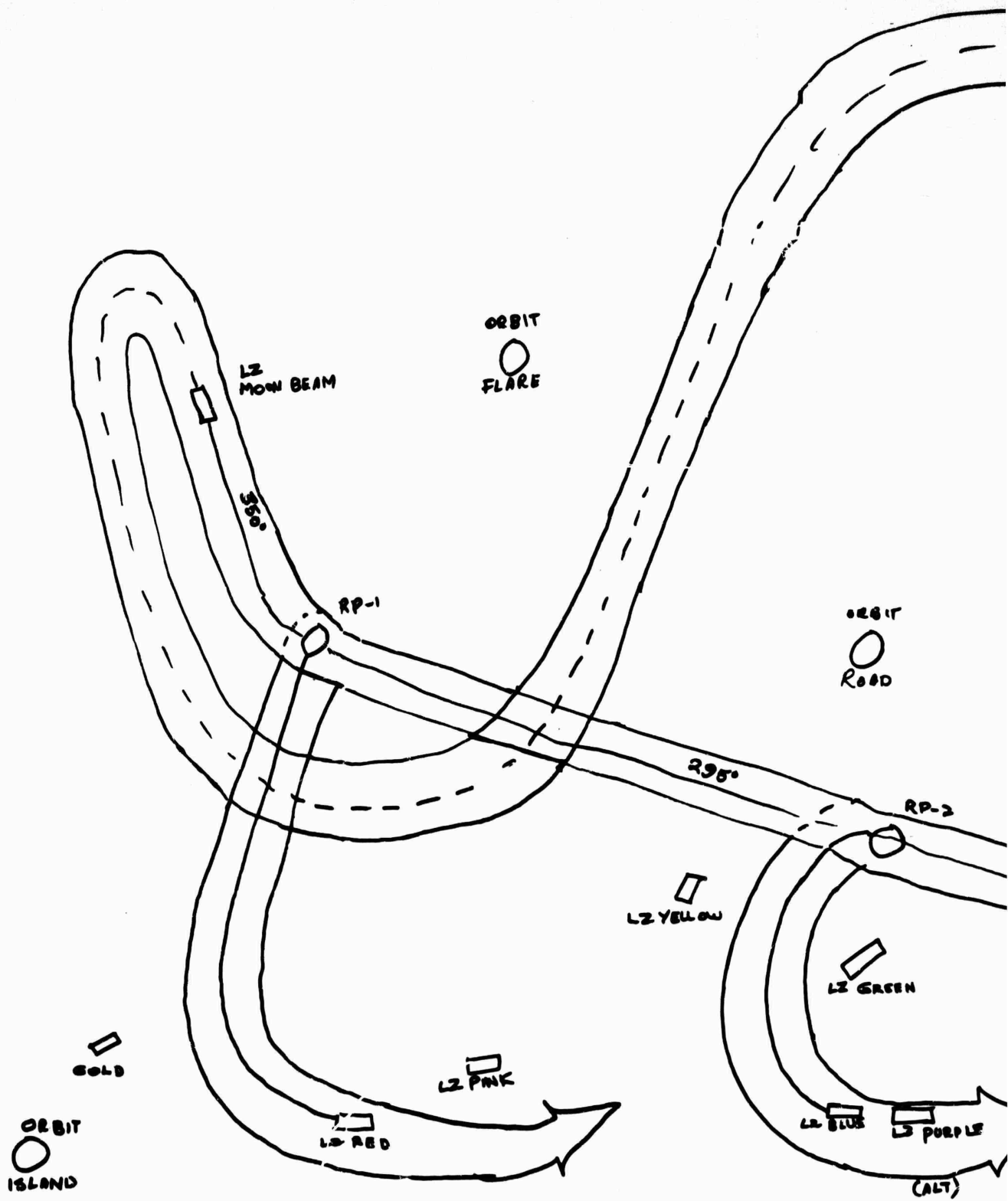
When these devices are used, armed helicopters must give maximum protection and may be required to expose themselves more than in the ground support mission. The enemy must be neutralized or driven away from the immediate area to allow the extraction to be successful.

This report was prepared by Major William P. Griffin, Commanding Officer, 281st Assault Helicopter Company. This companies operates under the operational control of 5th Special Forces Group, Nha Trang, RVN.

FIG 9



MC GUIRE RIG

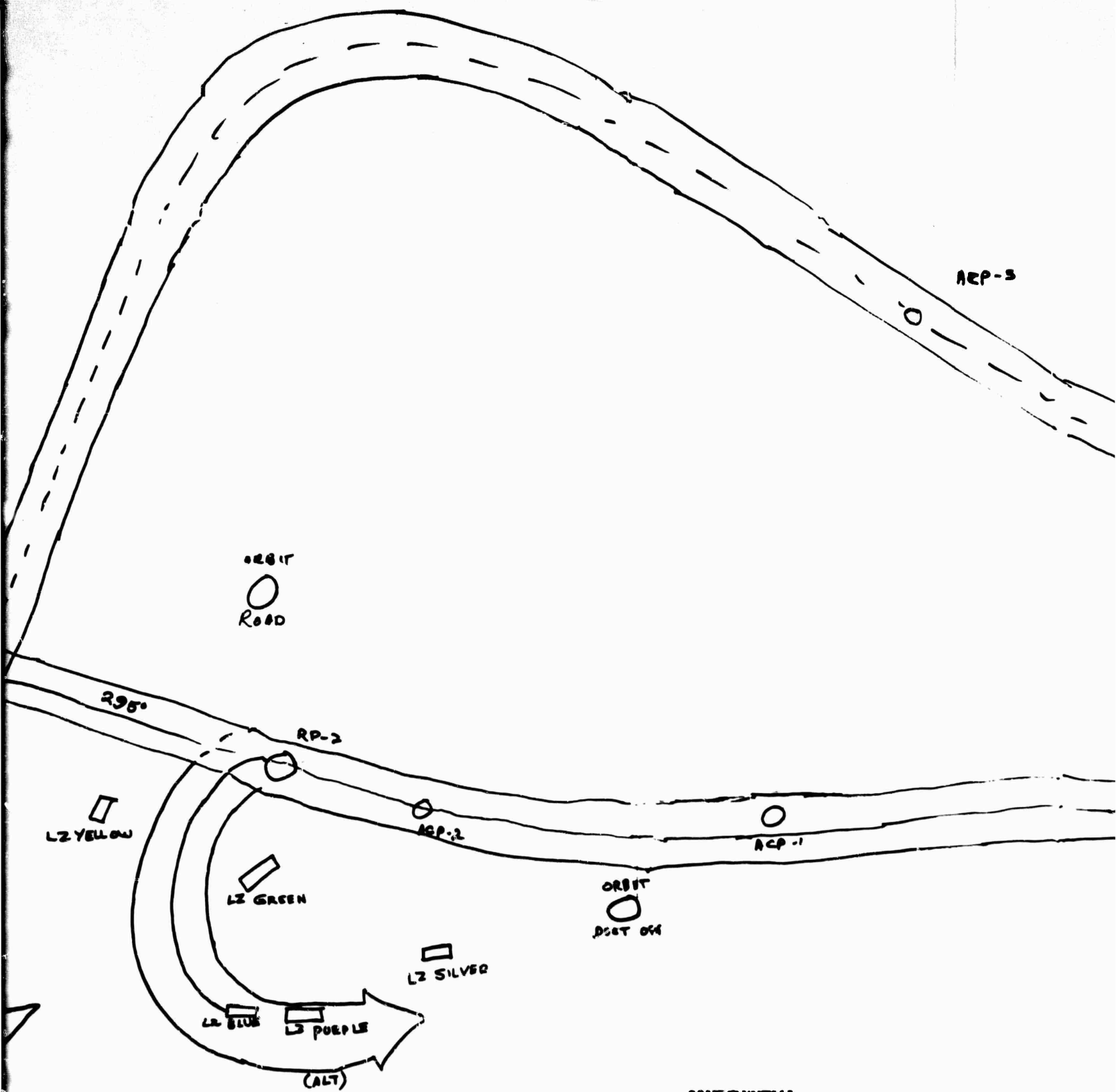


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Annex A to Incl 1

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CONFIDENTIAL



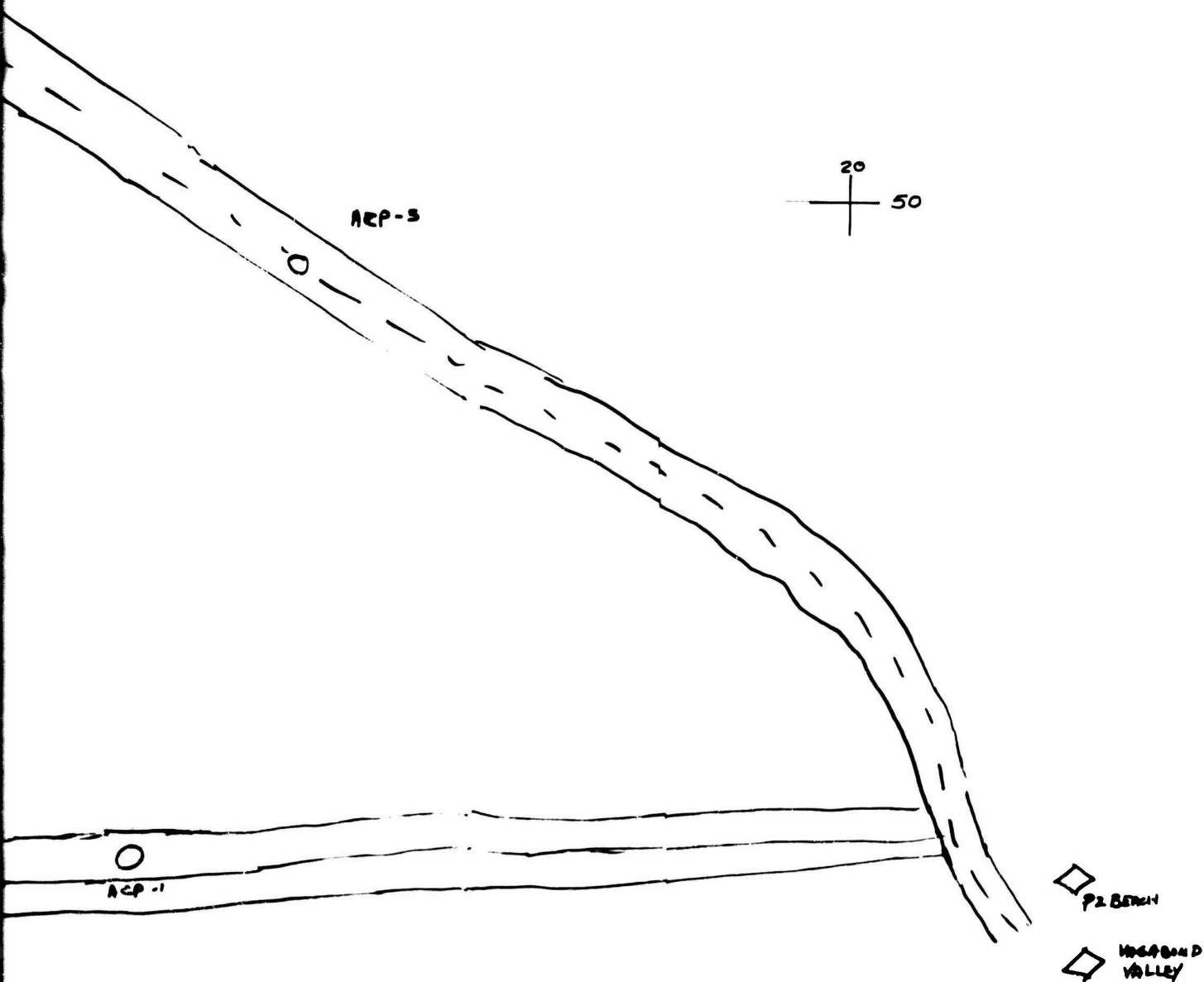
CONFIDENTIAL

Incl 1

1

2

CONFIDENTIAL



CONFIDENTIAL

2

3